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THE AMERICAN ELEVATOR AND GRAIN TRADE

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A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

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VOL. XXXIX.

431 South Dearborn Street, Chicago, Ill., August 15, 1920

NO. 2

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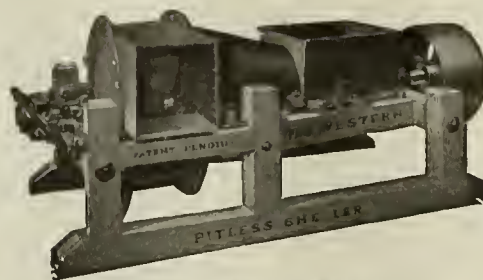
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Diamond Grain Elevator Belts

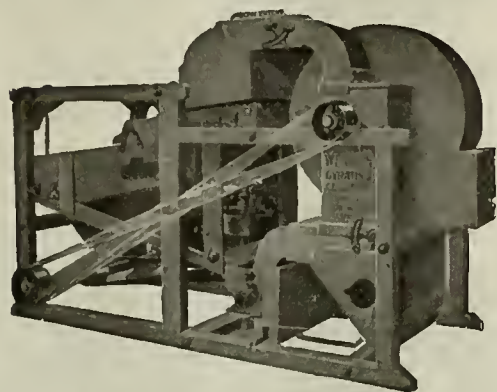




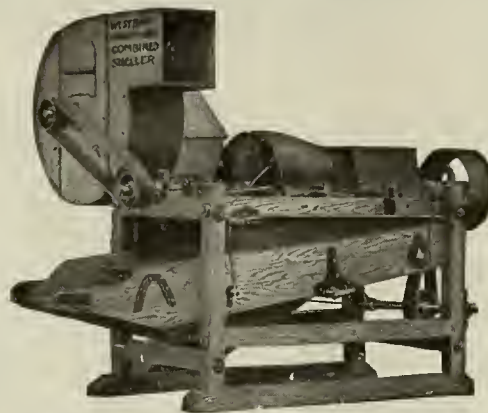
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"THE WESTERN LINE"

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It is equipped with our patent finger sieve, which absolutely prevents choking and cleans the corn better than any other sieve. This machine is built strong and substantial, and the teeth on the shelling cone and the shelling surfaces of the casings are chilled like the Victor Sheller described above.

There are thousands of these machines in use and are everywhere giving the best of results. For other styles of corn shellers and cleaners, get our special Catalogue No. 16-K.

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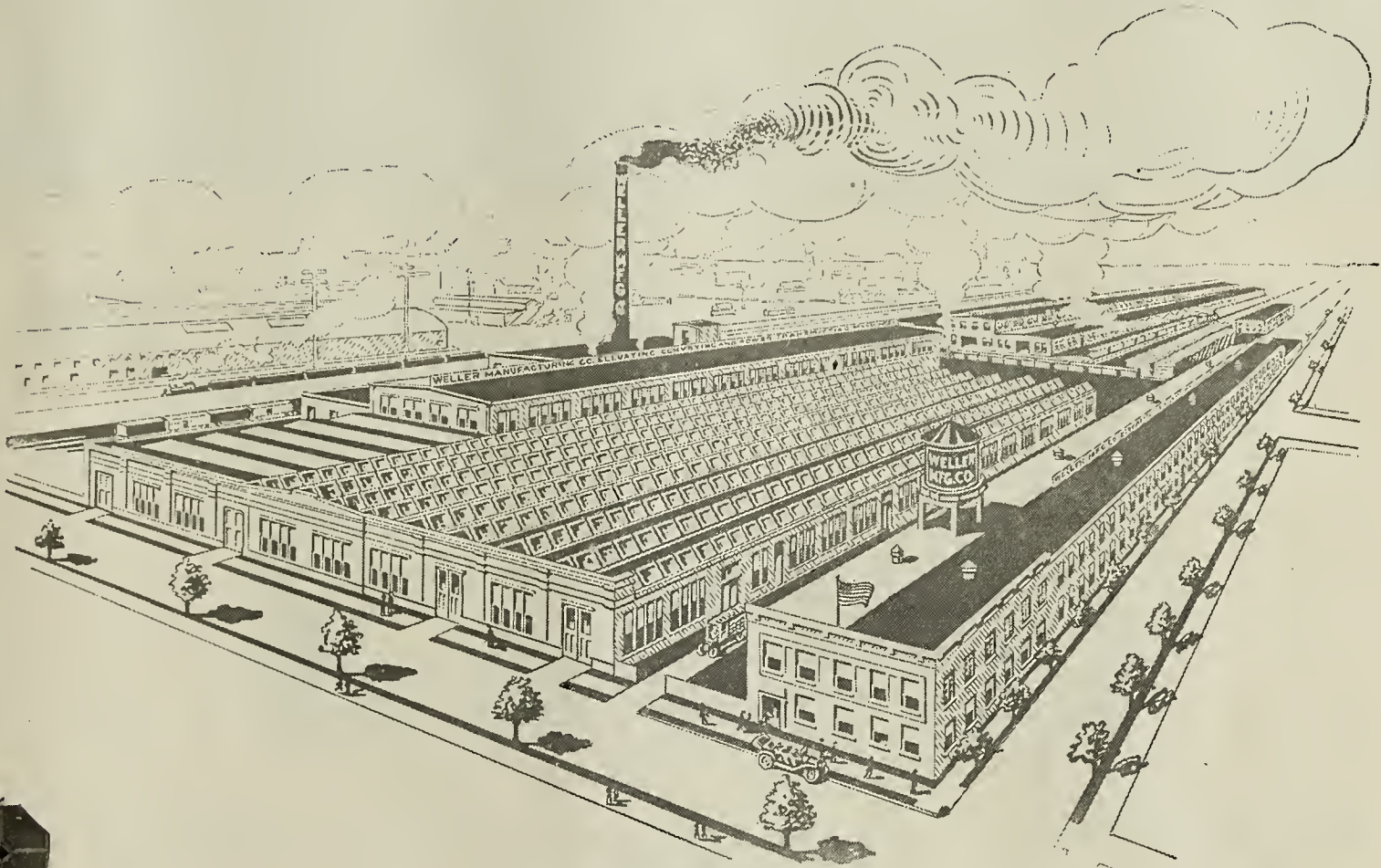
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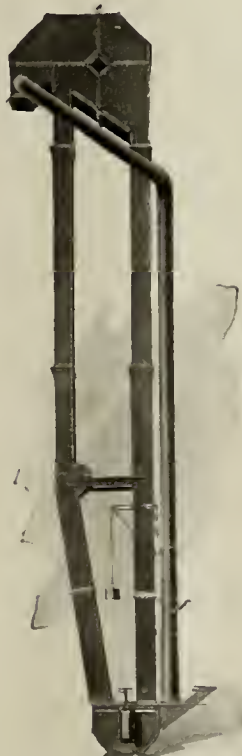
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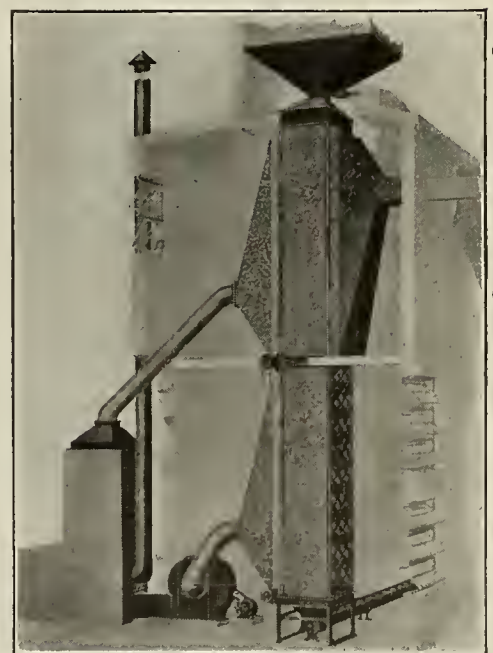
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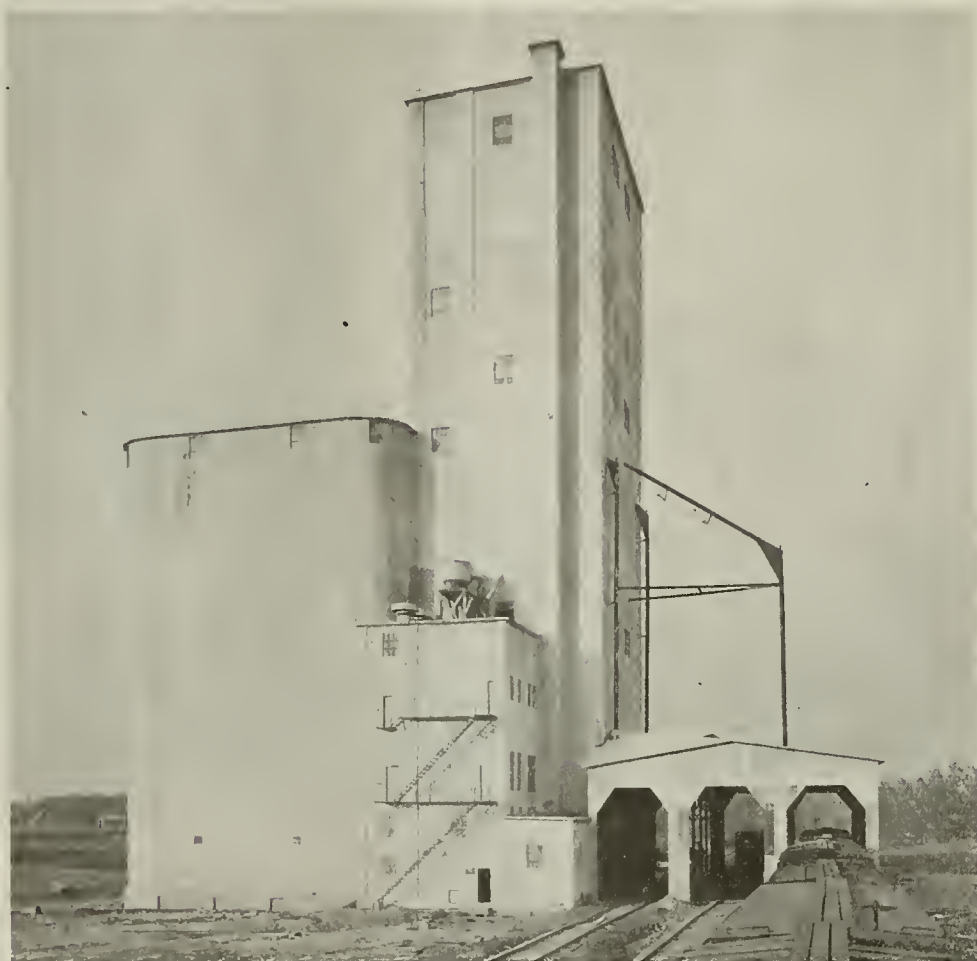
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Hamilton Rubber Mfg. Co., 218 No. Wells St., Chicago
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Canadian Elevator Plays Safe on Its Transmission

New House of James Richardson & Sons, Ltd., at Port Arthur, Ontario, is Fully Equipped with Morse Silent Chain Drives on All Essential Power Units



NEW ELEVATOR OF JAMES RICHARDSON & SONS, LTD., PORT ARTHUR, ONTARIO

CANADA has become an important factor in the world's bread supply, and yet only a comparatively small part of its vast western plains has been broken to the plow. The wheat exports far exceed domestic requirements, and as the supply grows steadily greater new facilities must be established to handle the great stream of golden grain which has its origin in a thousand ranches in the North and West and converges at the head of Lake Superior on its way to the sea.

To this end James Richardson & Sons, Ltd., of Winnipeg, have just completed a new 200,000-bushel elevator on the water front at Port Arthur. The house was erected by the Barnett-McQueen Company, Ltd., of Fort William, and is equipped with the most modern conveniences for speed and economy of operation. This has become a necessity, for it is quite certain that in the near future the elevators on the lakes will have to compete not only with the trade on fresh water, but also with seaboard exporters for direct shipments abroad.

Now most modern port elevators have adequate capacity, and complete machinery for cleaning and conditioning the grain which passes through the house. There is rarely a question of being able to handle the incoming cars of grain, so long as boats are available to relieve the congestion, and car demurrage rarely occurs from this cause. But serious as demurrage charges can be on occasion, they are nothing compared with the penalties for delayed vessels. To avoid these penalties, every care must be exercised in the power units and in the transmission of that power. Reliability is the dominant factor; there must be no hitch or delay when a steamer is docked for loading.

This question of reliability was effectively answered by the Barnett-McQueen Company when a complete electric sub-station equipment was installed with modern dust-proof motors and with Morse Silent Chain Drives for all power transmission. The supreme faith of the designers in this transmission service is illustrated

by the installation. Every essential drive in the house is a Morse. They consist of three 120-horsepower drives for shipping legs; three 90-horsepower drives for receiving legs; five 45-horsepower drives for the four grain-cleaning legs and the one flax leg; one 35-horsepower drive on the screenings



AN ELEVATOR LEG DRIVEN WITH MORSE CHAIN

leg; one 45-horsepower drive on the drier leg; two 35-horsepower, one 25-horsepower and one 15-horsepower drives on the cupola belts; four 25-horsepower drives on the car shovels; two 35-horsepower and one 45-horsepower drives on basement belts; three 10-horsepower drives on receiving belts; one 5-horsepower drive on the drier belt; two 50-horse-

power car pullers; one 50-horsepower drive on the marine leg; one 25-horsepower drive for drier fan; and one 20-horsepower drive for the cooler fan.

Engineers of the high standing of the designers of this house do not select equipment which they are not sure will prove a credit to them, not only in the appearance of the plant, but in its serviceability for years to come. A builder's reputation is not made in a day, and that of Barnett-McQueen has been growing for many years and the monuments to their engineering ability are found in some of the largest elevators of the Dominion. It is not without significance, then, that Morse Silent Chain Drives were selected for the important work they are called upon to perform, and the reason for their selection can be found in their performance in many of the modern elevators of the United States and Canada.

The keen competition among elevators requires something besides reliability in their equipment. Economy also is a factor which claims consideration, and in this respect the Morse Drive ranks high, for repair and replacement cost has been reduced to a minimum and the labor factor in the attention which the drives require is so small as to be of no consideration. On this ground also the selection of Morse equipment is more than justified.

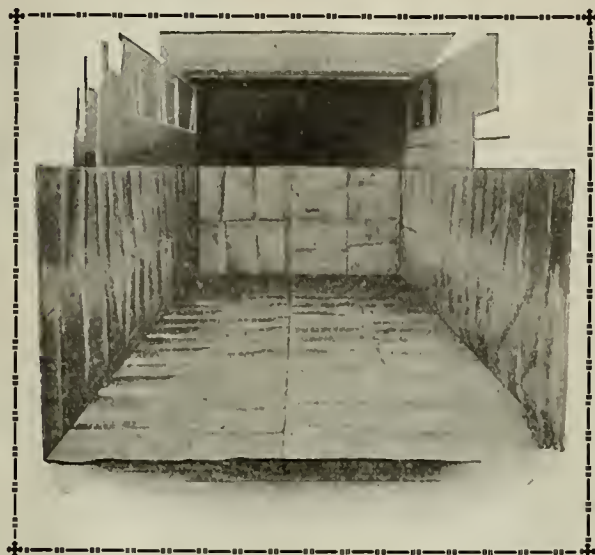
As the season advances and Canada's great crop prospects are realized, this transmission service will have a thorough test, for there is little doubt but that more grain will pass through Port Arthur and Fort William this season than ever before. But the makers have no fear of failure as every chain is tested thoroughly before it is shipped from the plant at Ithaca, N. Y. It is a serious matter these days to have an accident to equipment which necessitates sending out of town for repairs. Weeks of delay are not infrequent, but the elevator equipped with Morse Chain Drives has little fear of such a contingency as they do their work day after day without any trouble or worry for the operator.

—Advertisement.

MORSE CHAIN CO.

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Engineering Sales Offices in Principal Cities



KENNEDY CAR LINERS

The only device offered the grain shipper which makes his car absolutely leak-proof.

They prevent shortage disputes and make a remarkable saving of money

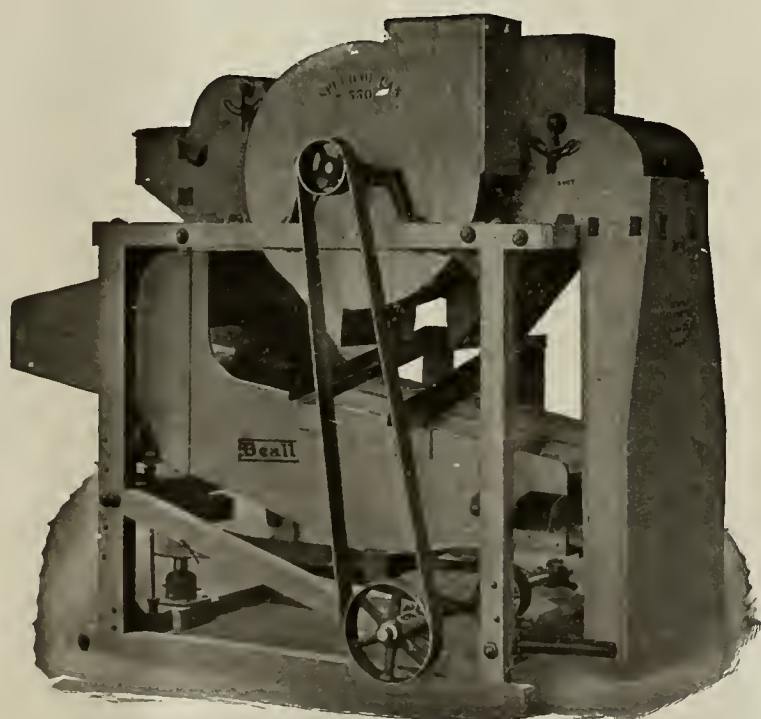
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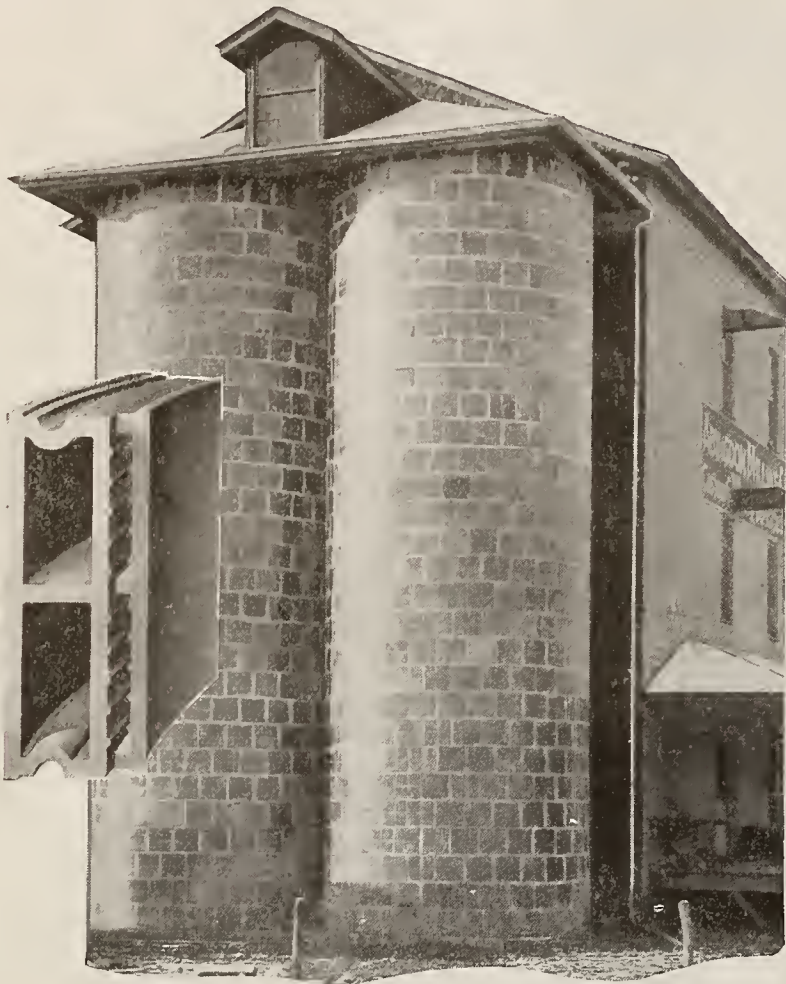
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make a material saving over machines of this character—do better work and last longer. Be sure and secure the Beall in this department of your grain elevator equipment.

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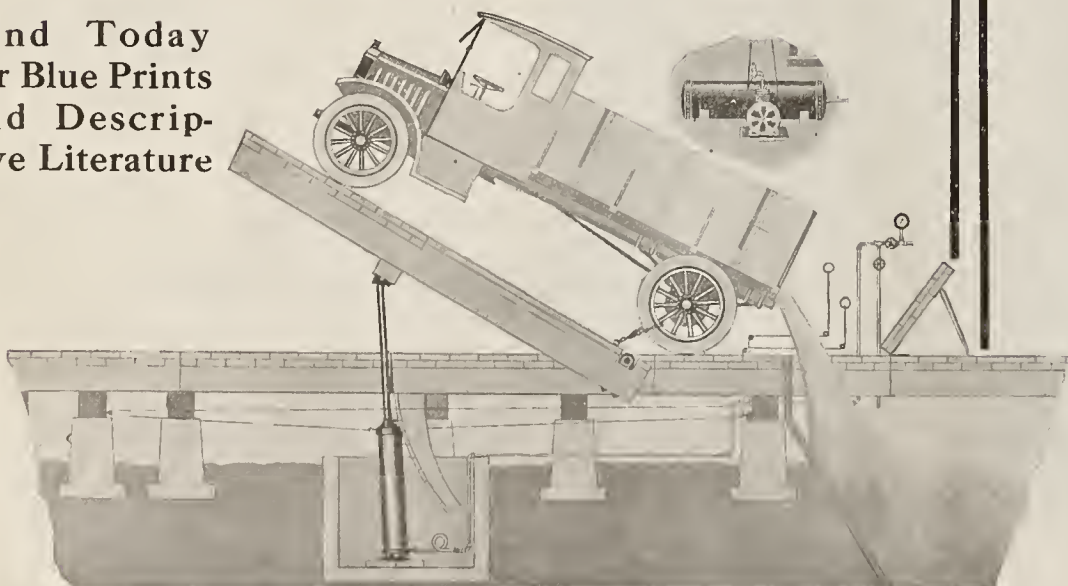
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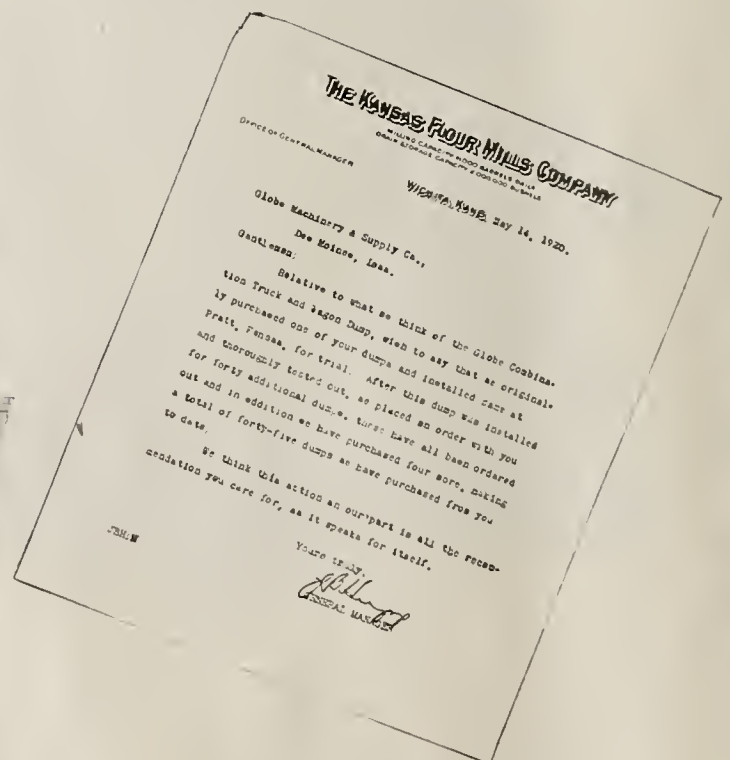
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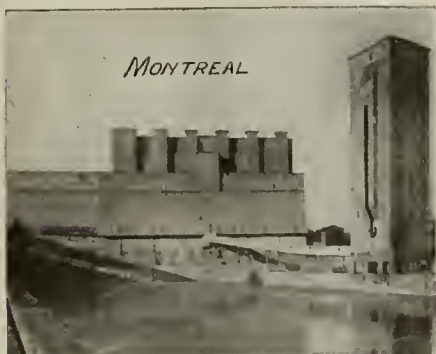


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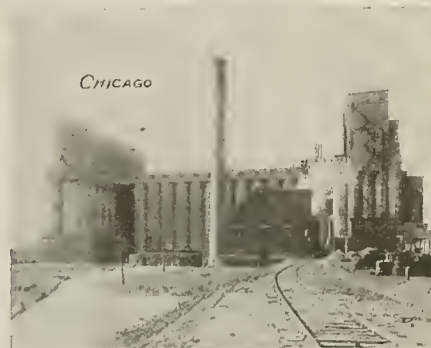
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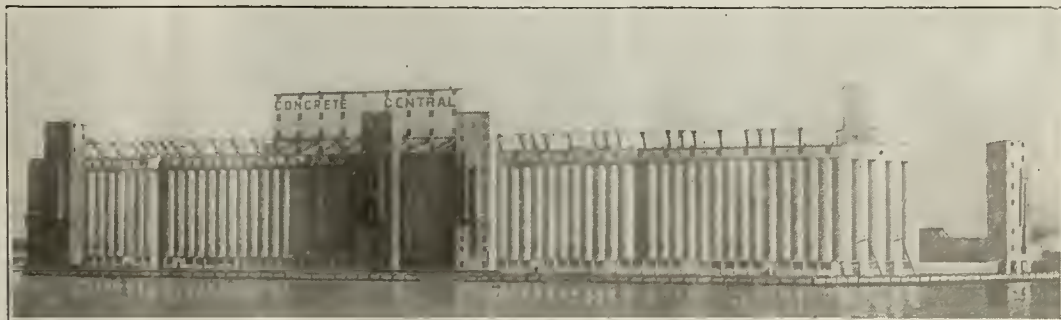
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Assure You
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400,000 BUSHEL ELEVATOR

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MAKERS OF

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"There's A Reason"

Macdonald Engineering Company

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Tower. Reinforced Concrete. Latest improvements. Write us for
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All-steel machines for all kinds of
CIRCULAR CONCRETE CONSTRUCTIONWe contract grain storages, water
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CHICAGO

Incorporated 1902

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In doing our best, completely and satisfactorily
to handle work in this field of construction
we have sought to establish the fact that

No job is too small to merit our careful attention and none so large as to tax our capabilities

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**TWO MILLION BUSHEL FIRE PROOF
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"We have built for many of your friends.
Eventually we will build for you. Why not now?"

We Design and Build Elevators, any type of Construction, in any part of the World.

JAMES STEWART & CO., Inc.

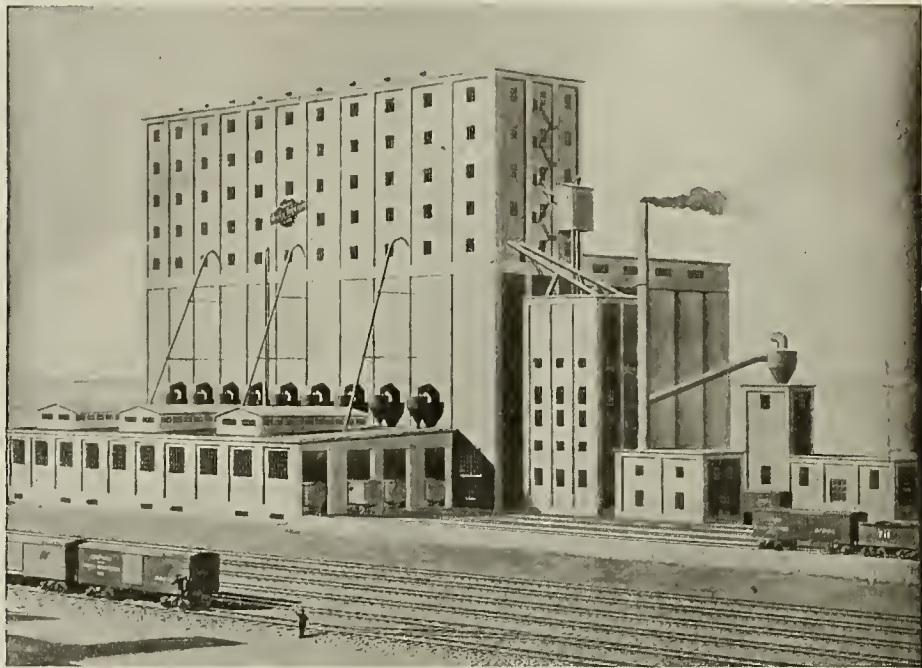
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Chicago & Northwestern Railway Company's New
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Fort William, Ontario

ARE YOU WORRIED

about the condition of that grain in your bins?
Let us equip your storage with a

Zeleny Thermometer System

to tell you the exact condition of
the grain and cut out the worry

Over 100 Elevators Equipped

Write for Description

WESTERN FIRE APPLIANCE WORKS

542 South Dearborn Street

Chicago



Reinforced Concrete Storage Bins built for
Wilkins Rogers Milling Co.,
Washington, D. C.

**ARE YOU IN NEED OF
Supplementary Storage?**

If so let us build it for you with
Reinforced Concrete.

This type of construction appeals
particularly to mills requiring sup-
plementary storage as it is
economical to build, is lasting and
absolutely fireproof.

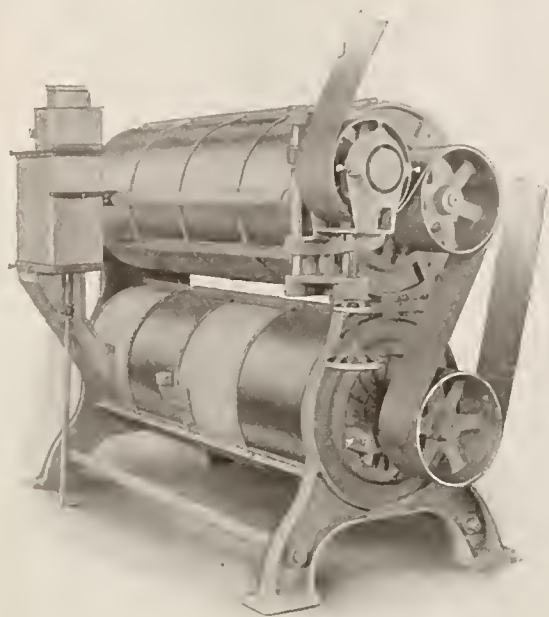
We will be pleased to give estimates.

The Spencer Construction Co.

Successors to Deverell Spencer & Co., Inc.

Garret Building, Baltimore, Md.

Specialists in Building Reinforced
Concrete Grain Elevators,
Flour Mills, Warehouses.



THE WOLF-DAWSON Wheat Washer and Drier

The Wolf-Dawson Wheat Washer and Drier occupies little space, requires slight attention and cleans the dirtiest wheat clean. It leaves the wheat berries in their natural color and may be spouted directly into car for shipping.

ARE YOUR PROFITS CERTAIN?

If you can buy a car of smutty wheat each week and wash it on a Wolf-Dawson Wheat Washer and Drier you can make a profit of \$177.60.

Dockage, 1,200 bu. @ 15c.....	\$180.00
Cost of operating, per hour—.20	
Cost of washing 1,200 bu.....	2.40
Gain per car.....	<u>\$177.60</u>

Your washer here is operating but 12 hours per week. If you can buy more than one car of dirty, smutty wheat each week, you can multiply your profits.

Buying one car of dirty, smutty wheat each week and washing it on our No. 936 Wolf-Dawson Wheat Washer and Drier, you can pay for the machine in just two months.

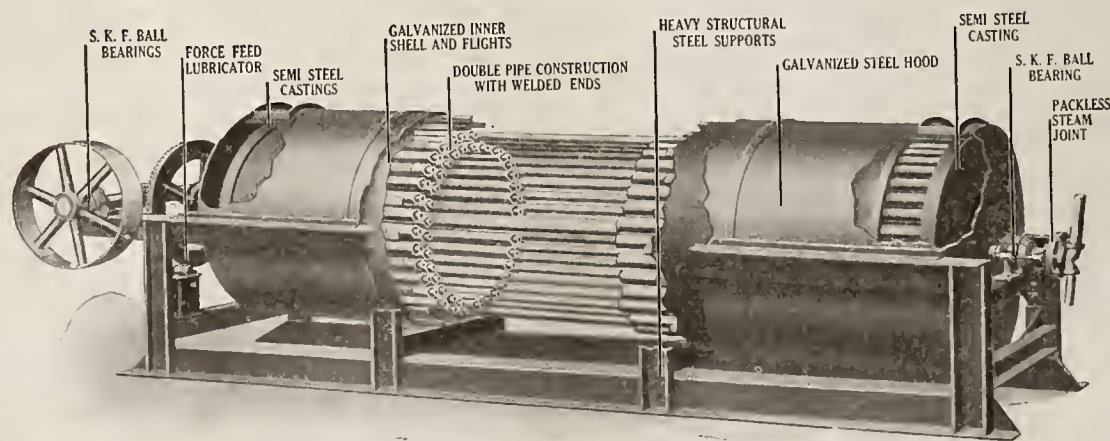
We should be pleased to send you Bulletin 94-M and give you additional reasons why a Wheat Washer would be a good investment.

THE WOLF COMPANY

Chambersburg, Pa., U. S. A.

The ELLIS ROTARY DRIER

BALLBEARING



Type "B" Rotary Drier

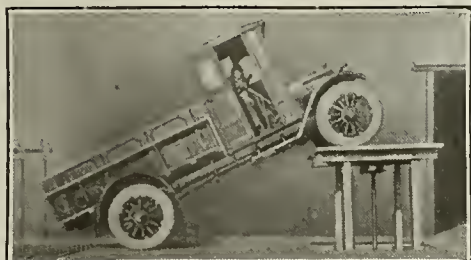
Our sole aim in life is to produce the best grain and cereal drying apparatus manufactured in the U. S. or anywhere.

One of the oldest and largest users of rotary driers in this country have placed ten repeat orders for these rotary driers in the past year.

Specify this drier in your next requisition.

The Ellis Drier Company, 332 South La Salle St., Chicago, U. S. A.

TRAPP Truck Dumping Service



is the safe kind. There would be no chance whatever of your patrons having accidents or damage to their trucks, providing you installed a Trapp Truck Dump or a Trapp Combination Truck and Wagon Dump.

We Believe

in consideration of the changed conditions of today, when many of your customers are getting auto trucks, that the most important improvement you could make in your elevator would be to have a Trapp Dumping System installed at once. You need a first-class truck dump now; and you will need one more and more all the time; because more of your patrons

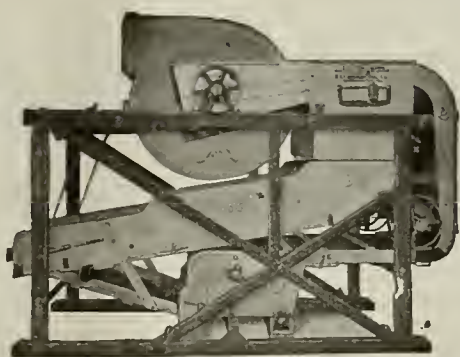
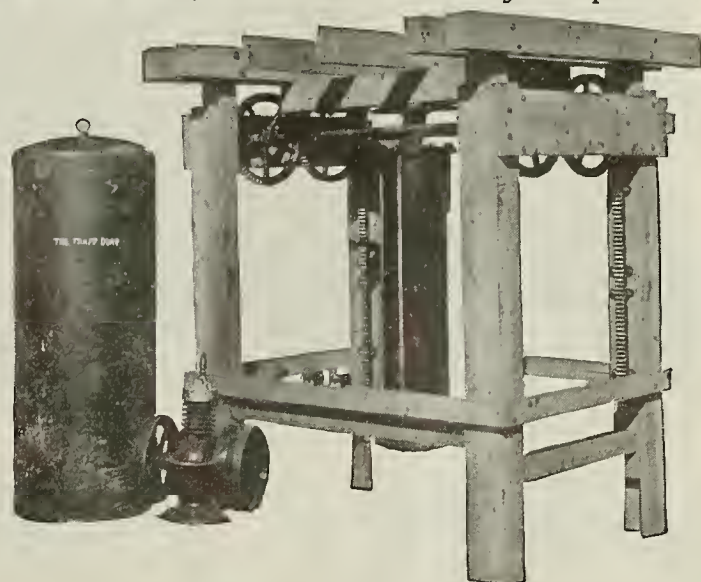
will be getting trucks. - You want uniform service in truck dumping—you want the dump that will stand up under heavy, continuous work. The Trapp Combination Truck and Wagon Dump is the one you want.

If You Make a Careful Investigation

of different available truck dumping systems, it is safe to say that you will decide to get a Trapp Dump. Start the investigation **NOW—WRITE AT ONCE** for our free circulars and full particulars. We will give your inquiry careful attention. Write to

The Trapp-Gohr-Donovan Co.

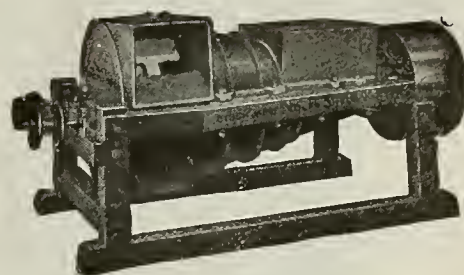
1125 North 22nd Street,
Omaha, Nebraska



The U. S. Grain Cleaner



The Constant
Safety
Ball-Bearing
Man-Lift



The U. S. Corn Sheller

The character and dependability of a manufacturer is equally important with the subject of quality, strength and service in his machinery.

The best assurance you can have of the two first points is to look at the record of the manufacturer's business principles extending over a period of years. For the remaining three points look at the record of his machinery.

We invite the closest scrutiny both of our business principles and our machines. The **CONSTANT** trade mark has been a guide to good buying of grain elevator machinery for many years. You may therefore enjoy the economy and satisfaction that comes from purchasing the **CONSTANT** line, without doubt or hesitation, knowing that you will receive quality, service and fair treatment.

B. S. CONSTANT MANUFACTURING CO.
BLOOMINGTON ILLINOIS

Here Is Another Elevator Protected With Tropical Paints.



This is a picture of the Superior Elevator of Pratt & Co., situated at Buffalo, N. Y. The concrete grain bins are coated with Cementkote, Elevator Gray, and the marine towers with Elastikote, Gray. This is one of the many elevators in the country that rely on Tropical Products to protect the contents of their grain bins from moisture and their metal work from rust.

Cementkote

This paint penetrates deep into the pores of concrete, making a waterproof surface out of one which is naturally very porous. There is no chance for moisture to work through and spoil the contents of bins painted with it.

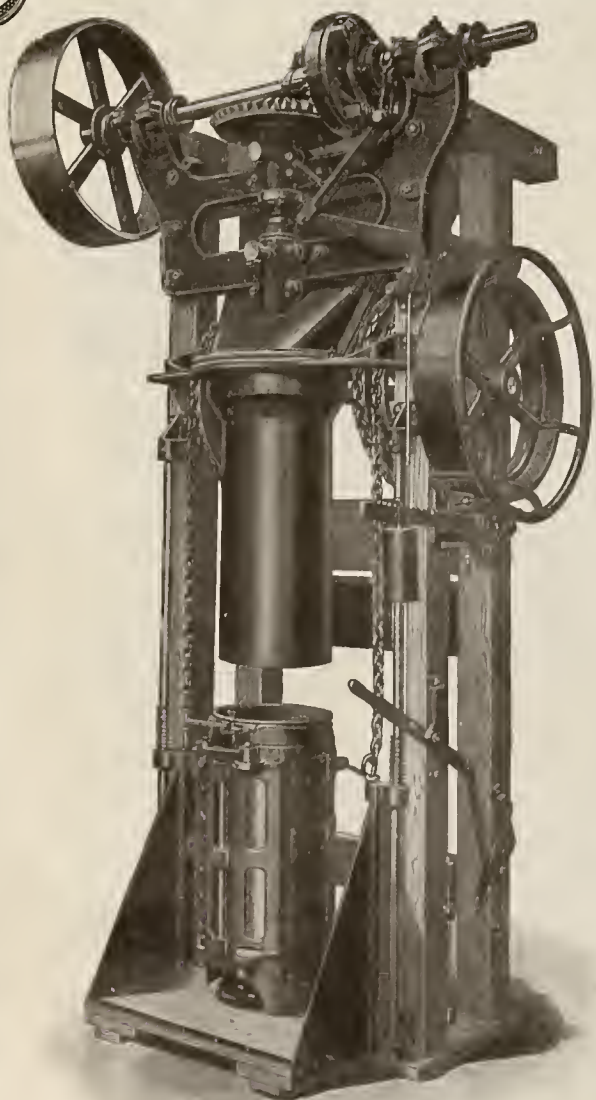
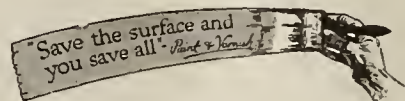
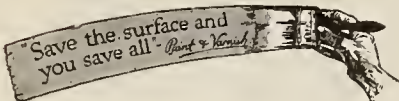
Elastikote

For metal, brick or wood surfaces we recommend our Elastikote. It is made especially for use along waterfronts and railways in manufacturing districts, where the air is filled with smoke and fumes.

A Tropical Representative will be pleased to call and give you further information about Cementkote, Elastikote, and other Tropical Products suitable for your use.

The Tropical Paint & Oil Co. Cleveland, Ohio

Specialists in the Manufacture of Protective Coatings for Grain Elevators and Flour Mills



MOGUL BRAN AND FLOUR PACKERS Lead Where Performance Counts

"Performance" is the final test of a Packing Machine's worth. The manner in which a Packer acts when the operator takes hold of it is what counts in the long run, and it is this self-same "Performance"—and nothing else—which has stamped the name "MOGUL" so indelibly in the minds of the milling public.

Wherever "MOGUL" Packers are operated, their "Performance" brings forth expressions of unqualified satisfaction from the users.

May We Assist You in Solving Your Packer Problems?

S. HOWES CO., Inc.

Eureka Works

Silver Creek, N. Y.

European Branch: 64 Mark Lane, London, England.

REPRESENTATIVES

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Brinkley Supply Company, Seattle, Wash.

SERVICE ELEVATOR

A NECESSITY

IN

Modern Mill Equipment

AN absolutely dependable, practical passenger elevator that can be used in flour and cereal mills, grain elevators and factories. This machine occupies very little space and can be built in heights to suit any condition. It operates with a minimum power requirement and may be driven by means of a belt from a power shaft or from an electric motor.

The principle of the elevator is an endless belt with steps and handles attached. A passenger may stand on the ascending or descending step in a comfortable position and mount or leave it with safety at any floor, either by stopping the belt or simply stepping off as the floor is passed.

An automatic safety device offered with this elevator means complete safety to users. This appliance shuts off the power and applies the brake if a passenger does not alight at the top floor. Passengers can not be carried overhead and injured because automatically the belt and steps are locked against movement in either direction.

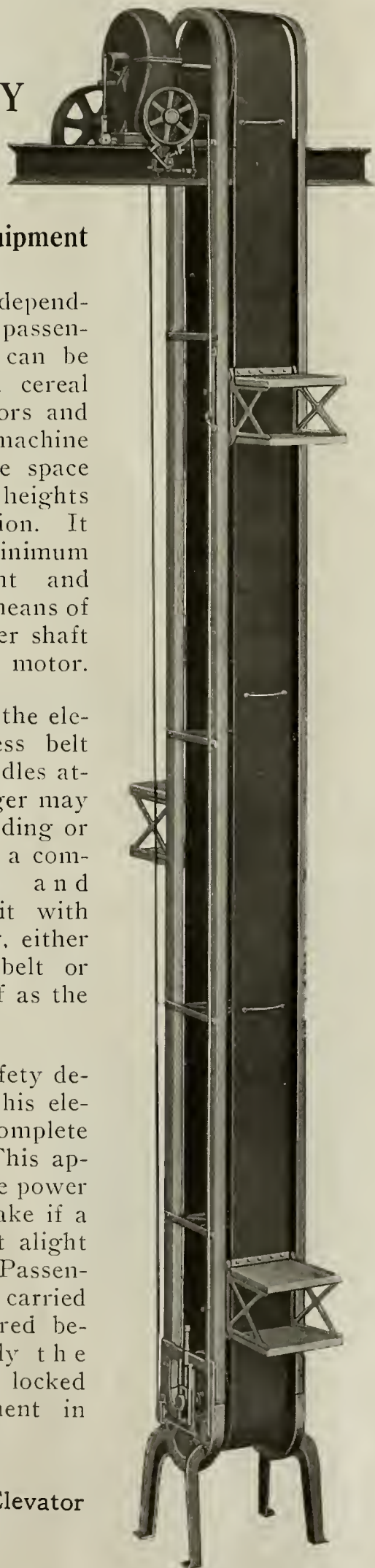
Send for Service Elevator
Circular

NORDYKE & MARMON COMPANY

ESTABLISHED 1851

INDIANAPOLIS, INDIANA

America's Leading Mill Builders



Stern, Costly Facts

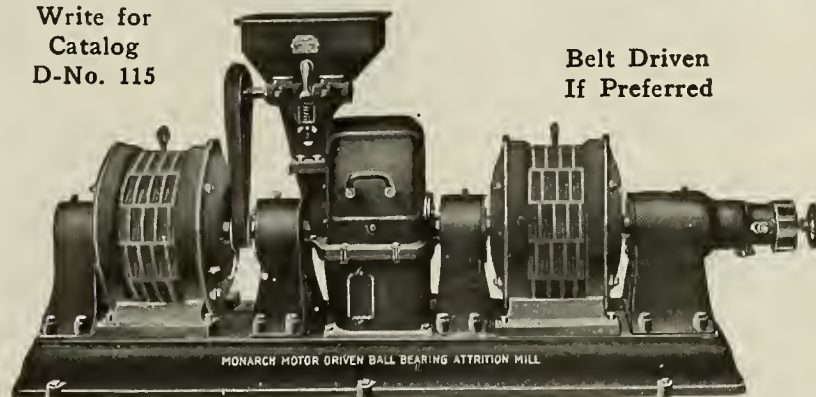
Are the little daily losses in time and lubricant; the repair stops and expenses; the trouble caused by uneven grinding and the maintenance bills of a babbitt bearing, out-of-date feed grinder.

We ask, as a plain business proposition, which would pay you better, to ignore these losses, which, in the aggregate, soon amount to a substantial sum of real money, or to protect yourself permanently from such loss by investing in

The Monarch
Ball Bearing Attrition Mill

Write for
Catalog
D-No. 115

Belt Driven
If Preferred



The Monarch is never careless, heedless or inattentive to business.

Ball bearings practically eliminate friction, institute perfect and permanent tram, chase away power and lubricant losses, and inaugurate and continually safeguard uniform grinding.

The mission of this mill is to protect your profits; not by the grace of luck, but by inbuilt, original features which never cease to exist.

SPROUT, WALDRON & CO.

Main Office and Works, MUNCY, PA. P. O. Box 320

Chicago Office: No. 9 South Clinton Street

The Corn Exchange
National Bank

OF CHICAGO

Capital - - - - \$ 5,000,000.00

Surplus and Profits - 10,000,000.00

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UNITED STATES DEPOSITARY

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Letters of Credit

Cable Transfers

Accounts of grain elevator operators and commission men throughout the country respectfully solicited

DOCKAGE TESTER

adopted by
U. S. GOVERNMENT

Present conditions demand accuracy in testing grain—your profits depend upon your tester. Don't take chances with experiments or guess.

EMERSON

is no experiment. It is men and officials who all times and under all

THE

NEW

KICKER

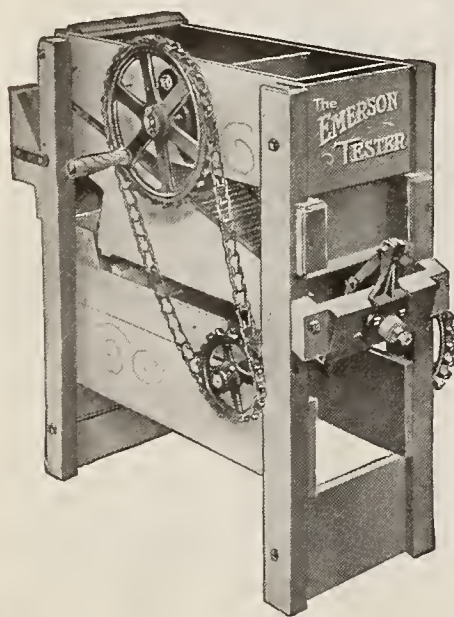
used by all grain must have accuracy at conditions.

10,000
KICKERS

are now in use—the Government uses over 100—Line, Independent and Farmers' Elevators all over find the Emerson dependable and a sure enough arbiter between seller and buyer on any dockage dispute.

Write for pamphlet and particulars.

Emerson Mfg. Co.
2821 Lyndale Avenue So.
Minneapolis, Minn.
Winnipeg, Can.



Can Be
Furnished
with Motor Drive

THE RECORDS

of the

Flour Mill and Grain Elevator
Mutual Insurance Companies

show that 80% of all fires in Mills or Elevators start in elevators. The installation of an automatic feeding device which will positively prevent an elevator choking from over-feeding and an automatic relief which will prevent an elevator choking from bin getting full or spout choking, will annually save millions of dollars in fire loss and add at least 50% to efficiency of any stand of grain elevators. These devices are perfected and are available for mill and elevator owners, are very inexpensive and absolutely practical. Full particulars will be furnished free of charge by this office, on request.

Mutual Fire Prevention Bureau
OXFORD, MICHIGAN

The Denver Alfalfa Milling
and Products Co.

Lamar, Colo.

Floyd Wilson, General Manager



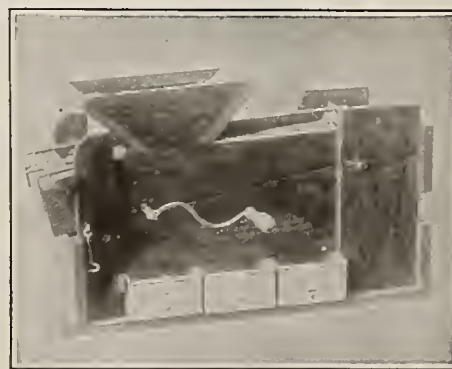
Twelve Mills operating in
Colorado, New Mexico and
Kansas—



Just a Little Better Service
and Quality.

How Much Dockage?

A difference of a gram in a Sample makes a difference of bushels in a carload.



The Cowan Dockage Tester

The Cowan
Dockage Tester

is reliable to the last kernel of the sample. Simple in construction, easy to operate, and rapid.

Load Cars the Better Way
with an

Englehart Loader

Even loading from end to end may save expense of reinspection. A few loadings pay for it in savings.



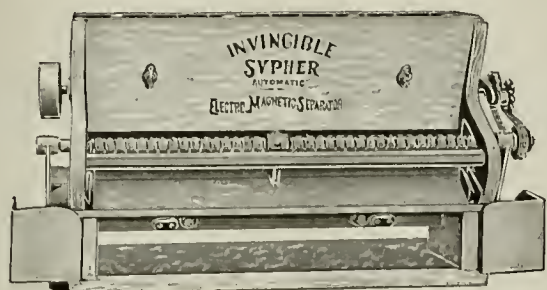
The Englehart Loader

Write for full information

The Cuthbert Company

408 Corn Exchange

Minneapolis, Minn.



A Permanent Magnetic Separator will in time lose its power.

An INVINCIBLE-SYPHER never.

With magnetism furnished by a direct electric current, it is absolutely impossible for any iron particle to get by. Cost of operation is no more than the cost of burning a single incandescent. There is nothing to be offered in the way of fire prevention that costs so little and results in so much satisfaction.

Made in 18 sizes to meet every capacity requirement.

Invincible Grain Cleaner Company
Silver Creek, New York

Bauer
SCIENTIFIC

Attrition Mills A GOOD BUY

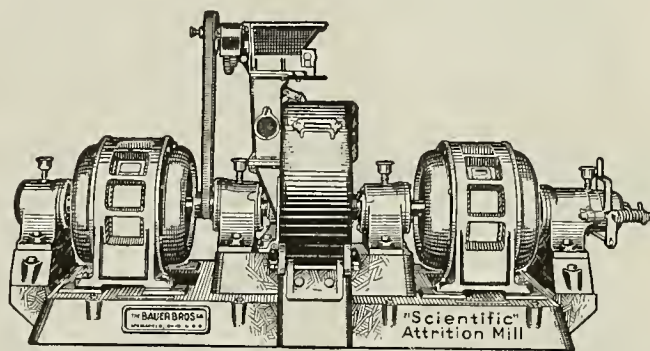
Yes, a Bauer Attrition Mill is a good buy.

A Mill that's quickly adjustable for grinding feed and meal, fine or coarse as required.

A Mill that will last longer with less up-keep cost.

A Mill which is most economical to operate.

A right Mill for the particular work you have in hand.



Bauer Motor Driven Attrition Mill—Also Made for Belt Drive.

THE BAUER BROS. CO.
517 Bauer Bldg. Springfield, Ohio, U. S. A.

Makers of Single Disc Mills, Centrifugal Bolting
Reels, Corn Crackers, Cake Breakers, etc.

SCIENTIFIC

How Do Your Men Travel from Floor to Floor?

Do they have to plod up and down stairs in the old, out-of-date way—wearing themselves out, wasting valuable time, and a yearly loss to you of hundreds of dollars? Or do they

RIDE ON THE HUMPHREY

Endless Belt route, thereby keeping themselves fresh for better work, increasing your output and cutting down your overhead, besides keeping in a cheerful, willing frame of mind? These are

ABSOLUTE FACTS

and we are ready and willing to prove them to your entire satisfaction. The secret of a competitor's increased production and better prices is probably due to his use of the Humphrey.

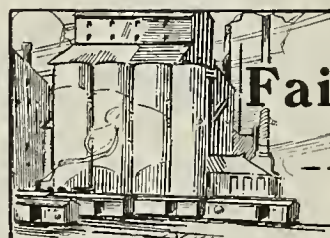
For 33 years the Humphrey has stood the test, and today is the natural leader. Construction, material and reputation for the "best" cause it to be specified by both large and small mills, elevators, engineers, and construction companies.

IF YOU HAVEN'T ONE YOU PAY FOR IT ANY WAY

Send for Bulletin A2

If not made by Humphrey Elevator Co. it's not a genuine "Humphrey."

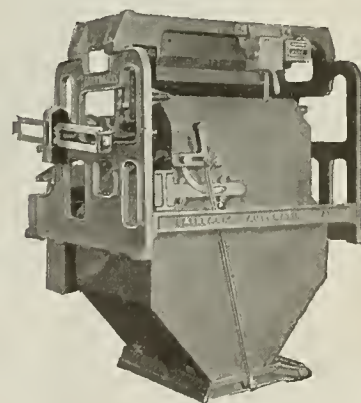
HUMPHREY ELEVATOR CO.
SOLE MANUFACTURERS
FARIBAULT, MINN.



Fairbanks Scales

Automatic Scales
with
Type Registering
Counter

To give you accurate every day knowledge of the exact amount of each kind of grain that passes through your elevator. Weighs same weight per discharge on all grains—Does away with changing weights in weigh-box. Backed by nearly ninety years of scientific scale construction.



Fairbanks, Morse & Co.
CHICAGO

Oil Engines • Pumps • Electric Motors and Generators • Fairbanks Scales • Railway Appliances • Farm Power Machinery



Elevator Buckets

Salem Buckets fill easily, carry maximum load, and empty clean. Notice rounded corners and general shape. The best elevator bucket for all kinds of grain and mill products.

Made in more sizes and gauges than any other bucket on the market. We fill orders promptly from the large stock which we carry.

H. W. Caldwell & Son Co.

CHICAGO, 17th St. and Western Ave.
NEW YORK, Fulton Bldg., Hudson Terminal, 50 Church St.
DALLAS, TEXAS, 711 Main St.

Screw Conveyors



Unquestionably our Helicoid (continuous flight conveyor) is the best screw conveyor made. We are the originators of and fully equipped to make the sectional flight conveyor also, but advise customers to use Helicoid, because it is better balanced and more durable than any other screw conveyor, and renders more satisfactory service.

Helicoid conveyor is well adapted to the handling of grain and all milling products; cotton seed and cotton seed products, fertilizers, sugar, starch, rice, coal, ashes, cement, concrete, phosphate, sawdust and many other articles.

HELICOID COSTS NO MORE THAN OTHER CONVEYORS

H. W. Caldwell & Son Co.

CHICAGO, Western Ave., 7th-18th St.
NEW YORK, Fulton Bldg., Hudson Terminal, 50 Church St.
DALLAS, TEXAS, 711 Main St.

SEE THAT YOUR CONTRACT CALLS FOR

THE CUTLER MEAL DRYER



All Metal Steam Dryer

SOLD BY ALL
MILL
FURNISHERS
Not An
Experiment

IN SUCCESSFUL USE 40 YEARS DRYING

CORN MEAL, HOMINY, BREWERS' GRITS AND MEAL, AND ALL CEREAL PRODUCTS. ALSO SAND, COAL DUST, GRAPHITE, CLAY, ORES, ETC.
Automatic in operation, requiring no attention.

THE CUTLER CO., North Wilbraham, Mass.

CATALOG ON REQUEST

THE BIRD SHIPPING SCALE



Proves Correct
Weights

Only scale on the market with an automatic record of every pound to every draft.

No chance for mistake.

Absolutely Fool Proof.

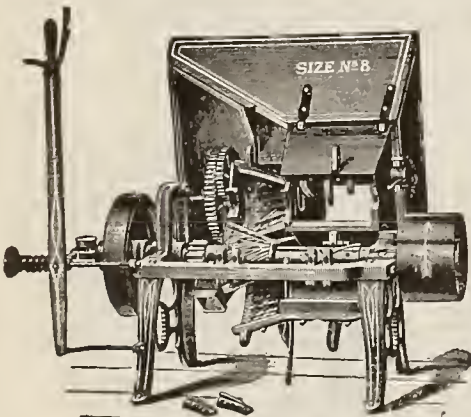
Send for Catalog

The Strong-Scott Mfg. Co. Minneapolis, Minn.

Let
Us
Prove
to
You
What
the
Bird
Scale
Will
Do

Make Feed Grinding More Profitable!

Bowsher's "Combination"
Mills do this



Mill opens like this in six minutes.

Because their large capacity, cone-shaped grinders and positive self ear feeders are properly designed to direct every ounce of power energy to the actual reduction of the grain.

Crush and Grind ear corn, husked or unhusked, alone or mixed with any kind of small grain in any desired proportion. Reduce the material to any fineness desired for feeding purposes.

11 Sizes, 2 to 25 H.P.
Sold with or without Sacking Elevator.

The N. P. Bowsher Co., South Bend, Ind.

A PROFITABLE INVESTMENT

Every elevator owner is operating to disadvantage who is trying to get along without a

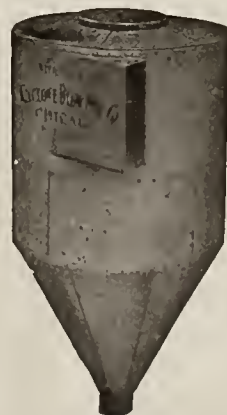
Cyclone Dust Collector

Do not delay longer but write today for full particulars on the installation of our system.

CYCLONE BLOW PIPE CO.

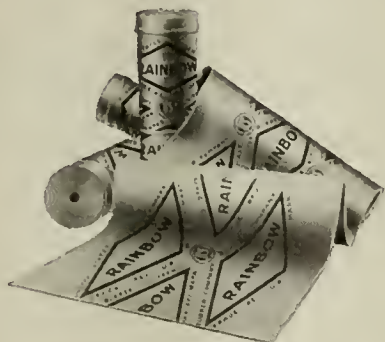
2542-52 Twenty-first Street, Chicago, Ill.

Complete new systems installed on modern plans and guaranteed. Old systems remodeled on modern lines on most economical plans. Supplementary systems added where present systems are outgrown. Defective systems corrected and put in proper working order.



DIRECT HEAT OR STEAM CONTINUOUS FLOW MADE IN ALL SIZES
Randolph Grain Driers
O. W. RANDOLPH CO. TOLEDO OHIO U.S.A.
WIRE
WRITE
PHONE

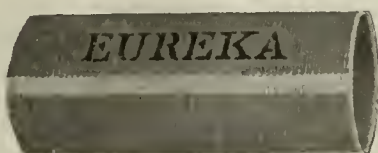
Rubber Goods for Flour Mills



Rainbow Packing



Rainbow Steam Hose



Linen Fire Hose

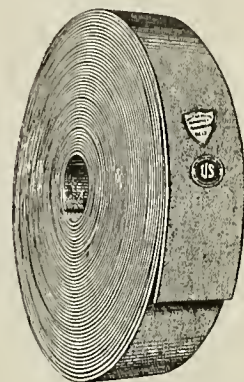


Grainster Belt

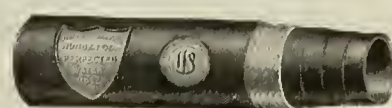
THE grain trade salesmen and the practical factory men of the United States Rubber Company are qualified through study and experience to recommend the right mechanical rubber goods for any condition existing in this industry.

They are ready to assist flour mill operators by advising as to the best application of mechanical rubber goods in order that the greatest possible service may be obtained for every dollar invested.

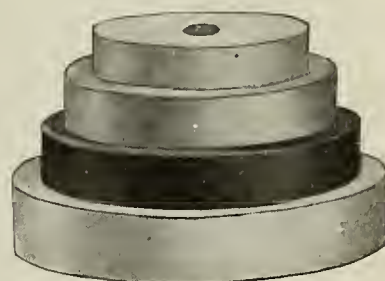
Take advantage of this Company's facilities and experience when in the market for mechanical rubber goods. Through our nearest Branch you can obtain the fullest co-operation of our organization.



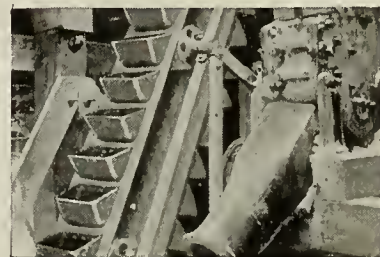
Rainbow Belt



Perfected Water Hose



Pump Valves



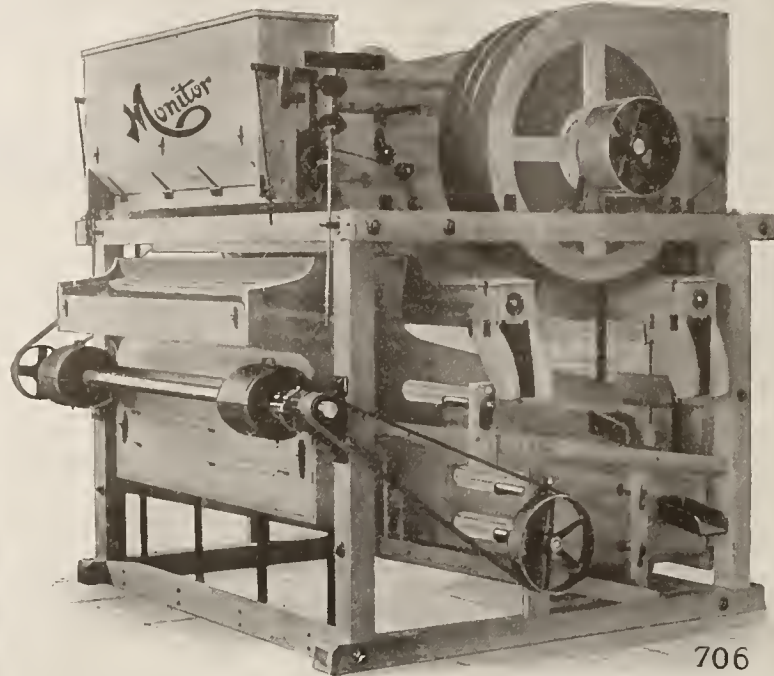
U. S. Elevator Belt

United States Rubber Company

*The World's Largest and Most Experienced
Manufacturer of Mechanical Rubber Goods*

BELTING	HOSE	PACKINGS	MISCELLANEOUS
Transmission "Rainbow," "Pilot" "Shawmut," "Giant Stitched" Conveyor "United States," "Grainster" Elevator "Matchless," "Granite," "Grainster" Tractor "Sawyer Canvas" "Little Giant Canvas" Agricultural "Rainbow," "Bengal" "Grainster," "Sawyer Canvas"	Air "4810," "Dexter" Steam "Rainbow," "Giant," "Perfected" Water "Rainbow," "Mogul," "Perfected" Suction "Amazon," "Giant" Garden "Rainbow," "Mogul," "Lakeside" <small>Also Hose for Acetylene, Oxygen, Acid, Air Drill, Auto Radiator, Car Heating, Air Brake, Gasoline, Oil, Hydraulic, Chemical, Coke, Creamery, Discharge, Vacuum, Sand Blast, Spray, etc</small>	Sheet "Rainbow," "Vanda," "Paramo" Rod "Wizard," "Rainbesto," "Peerless," "Honest John," "No 573" and hundreds of other styles in coils, rings, gaskets and diaphragms — Usco Valves — THE RIGHT PACKING IN THE RIGHT PLACE	Mats, Matting and Flooring, Plumbers' Specialties, Rubber Covered Rolls, Friction Tape, Splicing Comp'd, Dredging Sleeves, Hard Rubber Goods, Printers' Blankets, Tubing, Soles, Heels, Jar Rubbers, Moulded Goods





YOUR grain paper is constantly giving descriptions of interesting plants—either under construction, just completed or operating.

Read about them. You will soon notice the large number which are Monitor equipped. It shows a demand for Monitor machines which while not yet unanimous, is growing, steadily and rapidly.

Without merit, Monitor machines would not be so generally used. What better guide could you have? If you do not use the Monitor for your own sake, its time you did.

HUNTLEY MFG. CO.

P. O. Drawer E

Canadian Plant
Huntley Mfg. Co., Ltd.
Tillsonburg, Ont.

SILVER CREEK, N. Y.

A monthly journal devoted to the elevator and grain interests.

Official paper of the Grain Dealers' National Association and of the Illinois Grain Dealers' Association.

Established in 1882.



Published on the fifteenth of each month by Mitchell Bros. Publishing Co., 431 So. Dearborn St., Chicago, Ill.

Subscription price, \$1.00 per year.

English and Foreign subscriptions, \$1.75 per year.

Established in 1882.

VOL. XXXIX.

CHICAGO, ILLINOIS, AUGUST 15, 1920

NO. 2

New Elevator at the Canadian Head of the Lakes

James Richardson & Sons, Ltd., Erects New Fireproof Elevator at Port Arthur, Ontario, Which Sets New Mark in Canadian Grain Plants

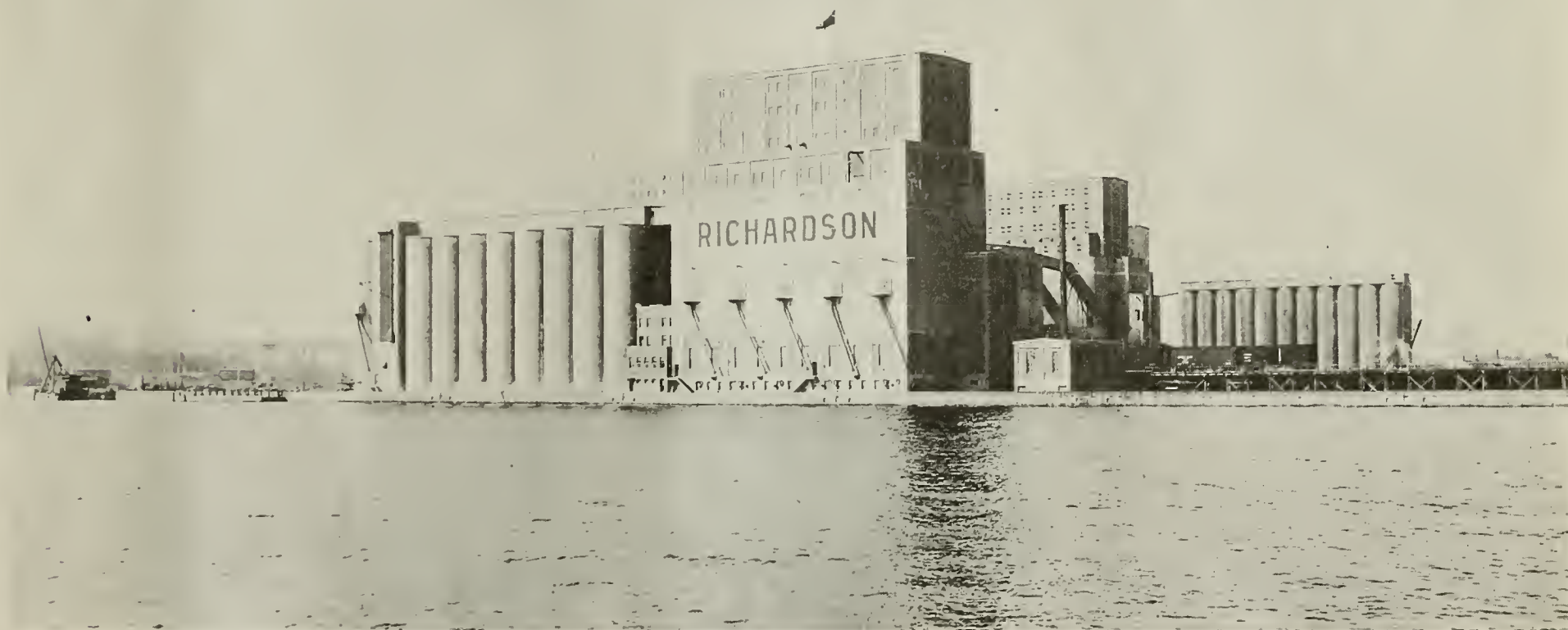
WHEN the Hudson Bay Company established a trading post at the head of Lake Superior in 1801 they called it Fort William. At that time all of the trading posts in the Canadian West had to be forts, to protect the few whites against the frequent Indian raids. The prairies were feeding grounds for countless herds of deer and buffalo, and that was all. In the whole western country no plow had turned a furrow, except in some sheltered valley where a pioneer had

spread up the water front to Port Arthur until the two towns, entirely separate, have come to be classed together in the general title, "Canadian Head of the Lakes." It is the eastern end of this "Head" that we are interested in at present, for Port Arthur has just added another to its already big list of grain elevators.

James Richardson & Sons, Ltd., of Winnipeg, have completed their 2,000,000-bushel elevator and it contains many features of interest in addition

in place, the entire property is filled up to the water line, and piling driven for the foundations of the building.

The plant, which is built of reinforced concrete, and fireproof throughout, consists of a 500,000-bushel working house; a 1,500,000-bushel storage plant; a drier of 1,000 bushels per hour capacity; a boiler house; a track shed with four receiving tracks, each with three unloading hoppers, and also a fifth track which is used for a general serv-



NEW CONCRETE ELEVATOR OF JAMES RICHARDSON & SONS, LTD., PORT ARTHUR, ONTARIO

raised enough grain and produce for his own consumption. There was no conception of the possibilities of those plans in supplying the vast stores of breadstuffs to the world which Canada has furnished in recent years; in fact, the long cold winters of the West were considered an effectual bar to all agricultural development.

But as settlement gradually took place and the lie was given to these early ideas by actual grain-growing accomplishment, the head of the lakes became of vastly more importance than a fur trading post. It became an important, perhaps the most important, station in the transportation of grain from the ranches to the seaboard.

From Fort William grain handling facilities have

to the important part it will play in handling the grain for eastern or foreign consumption. It is situated on the waterfront of Port Arthur and has unusual facilities for both rail and water routes.

In the first place, the plant was built on a water lot, and engineers can appreciate the problems which this involves. The work, as designed and constructed by the Barnett-McQueen Company, Limited, of Fort William, consisted of developing this entire lot, which was approximately 1,400 feet in length from the shore line to the Government Harbor line, and 400 feet on the back side of the property. This dock consisted of a timber crib and pile foundation, with a concrete deck 7 feet in height below the water. After the cribs are put

ice track; and office building and transformer house. Complete equipment is installed throughout the plant, which is designed for receiving, cleaning and shipping 200 cars of grain per day. There are also five railway trestles approximately 1,300 feet in length each, for handling cars to and from the plant.

A marine elevator leg, with a capacity of 15,000 bushels per hour, is provided for receiving grain from boats into the elevator, which is used principally for handling salvaged grain or for lighter-vessels which have had accidents, or have been damaged so as to make it necessary for the grain to be unloaded.

Grain can be loaded into ships at the rate of

75,000 bushels per hour, and at this rate requires six to seven hours to load the largest boats on the Great Lakes.

In its equipment and handling capacity, it is considered one of the most complete and efficient elevators in Canada and already has had the distinction of entertaining visitors from Russia, India, Africa, the Argentine and Australia, who have gone to inspect its engineering features and have invariably been enthusiastic in their praise of the house.

Three receiving belts carry the grain from the unloading hoppers to the work house, where it is taken by the three receiving legs to the scales and then distributed to the cleaners, to the drier, to storage or to the shipping bins. There are four belts in the cupola which take the grain to the storage tanks; and three belts in the basement which bring the grain from storage and connect with the three shipping legs. There are four legs from the cleaners and one each for flax and for the drier. In addition, the house has two car pullers and four power shovels.

The power is electric throughout, the current being received from a central station in the transformer house, which is furnished with a complete substation equipment and synchronous condenser. All the machinery units are driven by separate motors, the transmission being by Morse Chain Drive in each case. There are 33 motors with a total of 1,490 horsepower, the individual motors ranging from 5 to 120 horsepower.

During the construction of the plant R. D. Morgan, manager of James Richardson & Sons, was constantly on the job, on the lookout for every device and structural improvement which would make the plant, as it has proved to be, the last word in Canadian elevators.

THE CHINCH BUG MENACE

Warning messages from Missouri, Indiana, and Illinois state that the chinch bug is appearing locally in the southern portion of these states and somewhat farther north in Indiana. The spring flight of the bug continued over a longer period than usual, and for that reason the infestation has been extended to larger areas. The Bureau of Entomology, United States Department of Agriculture, apprehends severe injury to the corn crops later on unless steps are taken to check the infestation, and is assisting to the extent of its ability toward putting control measures into effect.

The Bureau of Entomology offers the following information: The chinch bugs spend the winter in clumps of bunch grass and under dead leaves and rubbish. In the spring they emerge and fly to fields of young wheat, where they lay their eggs on the root tops and stems. When the wheat commences to ripen and dry, the young bugs leave the wheat fields in armies and walk—for most of them can not yet fly—to the corn fields, where they do the greatest damage.

The fact that they make the migration from the wheat to the corn by walking gives the farmer his opportunity to check the invasion by pouring road oil along the bottom of a shallow furrow dug across the line of march. Deep holes should be dug every 25 feet along the furrow on the side nearest the wheat to trap the bugs.

Corn already infested may be sprayed with kerosene emulsion along the first rows to prevent the bugs from going farther. Some corn will be injured by the spray, but the balance will be safe from the bug.

As a preventive measure, burn all trash and dried grasses, especially such as grow in clumps like "broom sedge" during early winter or early spring. Roadsides and pastures should receive most thorough treatment of this character.

THE Norwegian ministry of supplies announced that sufficient consignments of rye and wheat have been purchased from the United States, Argentina and Australia to meet the requirements of the country for the remainder of the year. It will, however, be necessary to purchase another 100,000

tons in order to have a three or four months' reserve. The supplies for which contracts have already been made consist of 160,000 tons of rye and 100,000 tons of wheat, which will be shipped to Norway at the rate of 40,000 to 50,000 tons per month.

A COOPERATIVE ELEVATOR OF ATTRACTIVE DESIGN

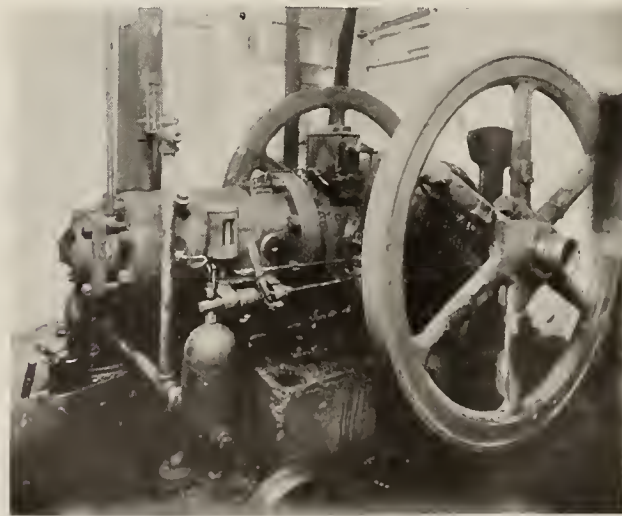
The Stanford Elevator Company of Stanford, Ill., was organized in 1895 as a farmers' elevator. While much of the stock was held by farmers the



PLANT OF THE STANFORD (ILL.) GRAIN COMPANY

business was conducted as a private company. Recently, however, it was reorganized and put on the co-operative basis and a new plant was constructed which embodies all the modern features of elevator construction and equipment.

The design of the house is a monolith with tower, a plan which is becoming rapidly popular as it embodies good looks with economy of space and building cost. The house has eight tanks with



FAIRBANKS-MORSE "Y" ENGINE IN THE STANFORD ELEVATOR

a total capacity of 45,000 bushels, not more than enough to take care of the prolific crops of that part of McLean County, one of the most advanced and prosperous in Illinois. The elevator is 36x36 feet on the ground plan and is 90 feet high. It is of concrete construction, and has a receiving and shipping capacity of 2,000 bushels per hour. The house handled about 350,000 bushels last year.

The elevator has an automatic scale and a Hess Ventilator Drier which is a useful adjunct for keeping grain in condition when cars are lacking.

The power is derived from a 20-horsepower Type "Y" Fairbanks-Morse Oil Engine, which uses low grade oil and consumes only about half as much as the gasoline engine that was installed in the old house. The transmission is by rope, about 350 feet being used for this purpose.

In addition to handling corn, oats, wheat and rye

the company sells coal, fencing, twine, etc., these being stored in a separate building, adjoining the office which is across the roadway from the elevator. Wm. H. Springer, the manager of the plant, is a careful, conservative man who takes good care of the interests of his patrons.

NEW FREIGHT RATES GRANTED

In granting increases in freight and passenger rates to make the railroads' revenue greater by \$1,417,888,325, the Interstate Commerce Commission gave the railroad property an arbitrary valuation of \$18,900,000,000 as against the railroad claim of \$20,616,000,000. To make a return of 6 per cent on this valuation the following increases will be necessary: Freight, \$1,134,000,000; passenger fares, \$233,827,982; Pullman car rates, \$43,639,344; excess baggage, \$1,420,999; milk transportation, \$5,000,000.

Formal authority is decreed for the following increases from current tariff, to go in effect Aug. 26.

Freight rates—Forty per cent in the East; 25 per cent in the South; 35 per cent in the West; and 25 per cent in the Mountain-Pacific territory.

Passenger rates—Twenty per cent, which figures out at about half a cent additional per mile.

Pullman rates—A surcharge of 50 per cent on rates.

Excess baggage rates—Twenty per cent advance.

Milk tariffs—Twenty per cent advance.

Coastwise and inland steamship lines and electric railway companies are also authorized to increase their rates in proportion to the increases granted railroads in their territory. The awards are specifically intended to cover the recent increase in wages to railroad employes, estimated to aggregate about \$600,000,000.

For grain and grain products, special provision is made by the Commission, as follows:

"On grain and grain products we are asked to apply in connection with such percentages as may be approved a maximum increase. For the same reasons that have led to the conclusion that neither specific nor maximum increases are desirable, we find that upon this record no exceptions should be made of the general percentages upon these commodities except as noted.

"There are in the Middle West a number of important grain markets through which it has been customary to maintain an equalization of the rates from important producing states to important consuming regions under which the sum of the rates into and out of the various markets is in most cases equal. This adjustment differs from an ordinary differential basis in that it is in substance providing an equal through charge over various routes between the same points by the use of sums of proportional rates rather than the establishment of joint through rates or of transit. The application of different percentages in the various groups will result in dislocation of this equalization.

"Carriers and shippers unite in recommending that this equalization be continued because of the keenly competitive situation of the various markets and of the lines of railway serving such markets. However, sufficient detailed information to cover fully the situation is not before us upon this record. We find that the grain rates into and out of the markets may be increased by the general percentages herein approved, with the understanding that the carriers will within 30 days after the service of this report file tariffs restoring the equalization through the grain markets now enjoying that basis. This should be done after conference with interested shippers, and if desired we will lend our co-operation in the premises.

"The Eastern carriers express of record their willingness to preserve existing relationship between the rates to and from the Eastern ports. No objection to this proposal was made. This result can be readily accomplished for the reason that all rates in official classification territory between the ports and points west of the Buffalo-Pittsburgh line are based on the New York-Chicago rates. The base rates may be increased and existing port differentials maintained. It is our view that in filing the increased rates here authorized a provision of this character should be made."

Dust Explosions in Grain Threshers

Experiments Conducted by the Department of Agriculture and Suggestions for Preventing Further Trouble.

By CAPTAIN H. P. SHELDON

THREE great divisions of the United States Department of Agriculture, the Bureau of Chemistry, Plant Industry, and Markets, are inclined to take some reports of bomb outrages with a grain of salt, and more than a grain of science. These bureaus have combined to investigate and, if possible, control, the mysterious explosions and fires which occur in threshing machines and which are known to the general public as "dust explosions."

Little enough has been written upon this interesting phenomenon, probably because only modern mechanical conditions are such as to produce the explosions with any frequency. With the adoption of high-speed machinery it is realized that the facts so long possessed only by scientists must be placed at the disposal of the farmers and manufacturers who operate dust-producing machinery. The reading public cannot realize how frequent these curious explosions actually are, especially in the wheat-growing sections of the Pacific Northwest.

Last year, in the Walla Walla section of southeastern Washington, there were reports of approximately 40 explosions and fires, the property loss involved being in the neighborhood of \$35,000. In the Palouse region, also in southeastern Washington, but of slightly larger area than the Walla Walla, where smut and grain dust explosions had been more numerous than in any other section in previous harvests, there were about 40 explosions—with a property loss of about \$40,000.

In previous years by far the greatest number of thresher explosions and fires occurred in the Palouse region. Therefore, the investigational and educational work generally had been confined to this territory. As a result of the unusual number of explosions occurring in the Walla Walla section during the 1919 season, there is urgent need of similar work there.

It seems advisable to describe more fully the factors which combine to produce a grain dust explosion in a threshing machine. The first ingredient

are efficient cannot be doubted. There is no record of any explosion occurring in a machine that had been properly equipped with these devices, though these machines were operated in the same section under conditions of high temperature, low humidity and dust—all prime factors for the occurrence of dust explosions.

Circular No. 98, entitled "The Installation of

probably can be obtained by so wiring the machines as to carry to the ground accumulated charges of static electricity. Tests conducted upon machines in operation showed that the electric discharge was most likely to occur between the concaves and the immediate projections on the sides of the interior of the machine, or, possibly, between the grain pan, or shoe, and the nearby interior projections. The tests also showed a state of electrification along metal pipes through which dust and smut-laden air was forced, and upon metallic surfaces in contact with passing straw or grain.

Much success has resulted from the use of a fire extinguisher adapted to grain separators, which in the event of fire not only saves the machine, but



A GRAIN DUST EXPLOSION IN A THRESHER IN THE PACIFIC NORTHWEST
This remarkable photograph was not "staged." The camera was set to take a picture of the thresher in operation; at the moment the bulb was pressed the explosion occurred, and the striking picture shown above was the result.

Dust-Collecting Fans on Threshing Machines for the Prevention of Explosions and for Grain Cleaning," was recently issued by the Department of Agriculture. This publication, with its numerous illustrations, will give general information regarding various types of fan equipment adapted to threshing machines.

Most often, apparently, the source of ignition is static electricity, great charges of which are gen-

prevents the spread of the flames to nearby grain and straw. Such a device effectively quenches explosions and fires resulting from causes not controllable by a dust-collecting fan and a wiring system, as for example, hot boxes or sparks produced by the passage of metallic or foreign substances through the machine.

Preliminary work with a number of types of filters for separating the dust in the air discharged by the special dust-collecting fans indicated the possibilities of the effective collection and disposal of smut dust and spores by such methods.

In conducting the experiments with aspirating systems, suction from dust-collecting fans was applied to the grain stream at the elevator head. Tests also were made to determine the force of suction necessary in such a system in order to remove the greatest quantity of dust and other light foreign material without drawing out grain, chaff and straw.

The greatest effort has been directed to the improvement of the dust-collecting fans, which have reached a more or less final stage of perfection. To this end, the numerous manufacturers of threshing machinery have given valuable co-operation to engineers of the Department.

The scientists conducted special experiments with devices intended to remove smut dust and dirt from the grain. In brief, the principle applied was that of dropping the wheat grains through an upward moving current of air, the wheat being of sufficient weight to continue its downward journey, while the lighter particles of dust responded to the air current and were carried along a tapered pipe and deposited in a chamber with a trap bottom, so that when a sufficient weight of refuse had been collected the bottom would open automatically and drop the contents into a sack attached below. They found that aspiration applied at the head of the grain elevator was fairly efficient in removing free smut dust, and that it had a marked tendency to clean the grain of other dockage. In the case of smut dust, it could then be removed and burned in the boiler fire, and so prevented from spreading infection. A 6-inch stovepipe with an ordinary damper led the air current from the trap chamber to the fan and an adjustment of the damper could be made to regulate the strength and force of the



THE RESULT OF A DUST EXPLOSION AND FIRE
This is not a wrecked German siege howitzer, but a "combine" destroyed by a dust explosion and the resultant fire.

necessary for the combination is smut, grain dust, or a combination of both, as more frequently occurs, liberated in the separator during threshing operations. Aside from its unpleasant ability to get up one's nostrils and down inside a warm shirt collar, there is nothing to indicate that the dust is dangerous. But an explosion and fire results if a spark or flame is brought in contact with the proper amount of dust in suspension in the interior of the machine.

That the preventive appliances, particularly dust-collecting fans, designed by the departmental investigators and threshing machine manufacturers

erated in the thresher itself through the action of racing belts, whirring cylinders and passage of grain, straw and dust over metal surfaces. In short, the thresher becomes a huge dynamo, constantly making and storing electricity, which, unless given a closed metal path to the ground, will pass between metal parts or off into the air in the form of sparks. Or the necessary heat for ignition may be supplied by a spark produced by metallic or foreign substances passing through the machine; a heated bearing, the flame from a stray match, or the coal of a discarded cigarette.

A great reduction in the number of explosions

air current. An air current of about 30 feet per second was found to be best suited to the proper extraction of the dockage, and with the suction used this could be obtained by setting the damper at about 45 degrees. It was found that this appliance would remove about 32 per cent of the foreign material in the grain without drawing over an objectionable amount of grain.

Another beneficial factor realized in the application of dust-removing fans and grain aspirators was the increased cleanliness and comfort for the laborers about the machine.

The outstanding features of the work accomplished by the departmental investigations in the wheat fields proves that better types of fans have been perfected and that their use is unmistakably beneficial in preventing fires and dust explosions. Steps are being taken to make the use of these fans, in conjunction with the wiring devices and fire-extinguishing equipment, universal throughout the Pacific Northwest.

As a result of a recent conference in Seattle between representatives of the Department of Agriculture, Washington state fire officials and representatives of insurance companies and underwriters' associations, recognition will be given by these insurance interests to the devices recommended by the Department for the prevention of explosions and fires in threshing machines. This has resulted in a 20 per cent reduction of insurance rates on machines in the Pacific Northwest properly equipped with a dust-collecting fan, fire extinguisher or wiring system. The former rate on machines has been practically prohibitive, being \$10 to \$11.50 per hundred.

The investigators conclude that the type of aspirator for grain cleaning described above is of definite value, but is possible of improvement in construction and needs further development to lessen its somewhat cumbersome adjustment and increase its efficiency.

A cyclone-type collector, consisting of a metal drum and canvas cone, was constructed and proved very efficient, but was somewhat too bulky for easy handling. This was towed from place to place upon an improvised trailer behind a small motor truck. The investigators report that a similar collector made entirely of canvas might solve the problem from both angles. Bag filters for gathering smut dust were effective, but required considerable attention to keep them cleaned out.

Additional experimental work to further develop field-smut collectors and grain cleaners is necessary, but the manufacturer and wheat grower will find much of immediate interest and value in Department Circular 98 regarding the installation of dust-collecting fans on threshing machines.

WHEAT HEATING IN STORAGE

Millers and grain men are very generally of the opinion that low grade and thin wheat will "heat" or get out of condition earlier than sound, mature and plump grain under the same circumstances. To test the truth of this conviction tests were made by the Dominion Grain Research Laboratory at Winnipeg. It was also desired to investigate the relation between the quality of grain as evidenced by its freedom from green, immature and frosted kernels, and the tendency to heat in storage; the percentage of moisture high grade wheat can safely carry in terminal elevators, the percentage of moisture the grain must contain before heating will take place, etc.

While the experiments were not sufficiently numerous to justify absolute conclusions, they indicated that sound wheat containing 16.5 of moisture or less, might be safely stored in terminal elevators. It further appeared that wheat containing any considerable percentage of frosted and green kernels, might heat if it contained 15.5 per cent of moisture and upward. Low grade wheat containing frosted, green or shrunk kernels and with a moisture content of 16.2 per cent will heat very readily and the heating will not be checked by the advent of cold weather.

It will require more extended experiments con-

tinued through several seasons to determine accurately the relation between the grade of grain, the moisture content, and the liability to heat. But the experiments thus far show that damaged grain will heat more rapidly than sound grain with the same moisture content when stored under the same conditions.

THE "BLACK" RUST

The so-called "Black Rust" has been thus denominated to distinguish it from "red rust" or leaf rust. It is more properly a stem rust and has a red as well as a black stage. The black or stem rust is confined to the stem and sheath of the plant.

This disease has been largely confined to spring wheat territory, although in 1904, the year of the great epidemic of rust, it extended to Nebraska and Kansas. It is in evidence to some extent, every year; but it becomes epidemic and disastrous only under favorable climatic conditions. The



STAGES IN LIFE HISTORY OF STEM RUST

[At the top a cross-section of a barley leaf showing young aecidia or cluster cups. Below, at the left three summer spores and one winter spore; at the right, a group of ripe thick-walled winter spores bursting out of the leaf.]

period when the greatest damage is done is always between the time of blooming and the time when the head is filling out.

The black rust (*Puccinia graminis*) is a minute parasite plant or fungus. The rust is a mass of microscopic tubes, arranged end to end in the form of threads and they reproduce their kind by means of minute cut-off cells or "spores." These spores fall off when ripe and are blown about as minute, invisible specks which travel and infest fields miles and miles away. Heavy rainfall followed by warm muggy days are supposed to multiply the rust rapidly and the wind carries the infection. This accounts for the rapidity with which rust spreads.

EFFECT OF MOISTURE IN GRAIN TRANSPORTATION

George H. Baston of the Division of Grain Investigation, U. S. Bureau of Markets, has been transferred from Washington to the Webster Building, Chicago, to investigate the amount of moisture grain can carry over various distances without deterioration.

A study of a great number of commercial shipments will be made and the information gathered will be analyzed by Mr. Baston so that definite data on the subject may be at the disposal of shippers. The various offices of Federal Grain Supervision will assist in the work, and the grain trade is asked to co-operate by sending to Mr. Baston as complete information as possible of all shipments which go out of condition in transit.

SUGGESTIONS ON BILLS OF LADING

The Keusch Grain Company of New York recently issued a letter of friendly advice which every shipper could profit by. The letter was, in part, as follows:

"During these times of business activity men are prone to be careless as to the little details of their business, even up to the point of neglect of some very important features that are absolutely necessary. This is true as to the execution of bills of lading.

"Bills of lading where shippers' signature is signed in typewriting or lead pencil; bills of lading with more than one car on the lading; bills of lading showing the agent's signature initialed; or changed bills of lading are not good collateral under most circumstances.

"Shippers should see to it that every bill of lading is executed in proper form and manner so as to have same accepted in the markets of the country as collateral when attached to drafts. This care and accuracy is within the ability of each shipper and losses incident to his neglect should not be complained of, besides which fraudulent bills are reduced in number in the proportion that carefully executed bills are required by shippers."

GROWING KANSAS AND MINNESOTA WHEATS IN IDAHO

The Idaho Experiment Station recently issued a Bulletin, No. 103, showing the results obtained by growing Turkey Red wheat from Kansas and Blue-stem and Glyndon Fife, hard spring wheats from Minnesota, under a variety of conditions peculiar to Idaho. The summary of the experiments is as follows:

1. The work reported here is a part of a project undertaken several years ago which has for its object the determination of factors which control protein formation in the wheat kernel.

2. Varieties of hard red wheats were secured for growth in Idaho under widely varying conditions of soil and climate. The varieties chosen are those which set the standard for milling wheats in the Northern and Middle Western States where they are extensively grown.

3. The Turkey Red variety from whatever source secured proved to be highly satisfactory wherever grown from the standpoint of yield in comparison with varieties of the white class. Excepting the crops grown on the dry farm at Aberdeen, the hard red spring varieties proved to be very satisfactory too from the standpoint of yield. It is doubtful, however, if the varieties chosen for this work are the equal of some of the well known varieties of the white class in capacity for yield.

4. Of the Turkey Red samples returned each year for analytical and milling work, those from the dry farm at Aberdeen were much the richest of all in protein. They averaged higher in protein for four years than did samples of the same variety representing three crops grown at Fort Hays, Kan., and North Platte, Neb.

5. Turkey Red grown on the station at Aberdeen with irrigation reached a high level of protein with the crop of 1916 under conditions of growth which point to an intimate connection between the soil's content of available nitrogen and the power of protein elaboration on the part of the wheat plant.

6. A low-protein content need not necessarily be characteristic of the Turkey Red variety under irrigation.

7. The protein of the hard red spring varieties grown on the station farm at Moscow varied widely from year to year but the average for eight years was but slightly less than that of the original Minnesota-grown seed.

8. Protein reached its highest level in the hard red spring varieties in crops grown on the dry farm at Aberdeen.

9. Protein was maintained at a high level in all crops of the hard red spring varieties grown with irrigation. Samples returned from the crops grown at Aberdeen in 1914 and in 1915 were practically identical in protein with the original Minnesota-

grown seed and with crops of the same years grown in Minnesota. In 1916 the irrigated crop at Aberdeen substantially exceeded the Minnesota-grown crop of that year in protein. At no time did the protein of the crops grown on the station at Gooding fall to the level of that of the original Minnesota-grown seed. In 1914 and again in 1916 it substantially exceeded the protein in the Minnesota-grown wheats of the same years and approached rather closely the extremely high protein content of the crops grown at Aberdeen under dry-farm conditions.

10. Hard red spring wheats of the highest quality can be grown in south Idaho with irrigation if other conditions of growth are satisfactory. Evidence that conditions which favor the rapid nitrification of soil organic matter also favor the manufacture of protein by the wheat plant is accumulating.

I. C. C. SUSPENDS PART OF MERCHANT MARINE ACT

Section 28 of the Merchant Marine Act which prohibits making preferential rates for commodities moving in import and export except when moved in American ships was suspended by the Interstate Commerce Commission until January 1, 1921, on the representation of the Shipping Board that adequate shipping facilities in vessels documented under the laws of the United States are not available at the present time. Section 28 of the Act reads as follows:

That no commission or carrier shall charge, collect or receive from transportation subject to the I. C. C. Act of persons or property under any joint rate, fare or charge, or under any export, import or other proportional rate, fare or charge, which is based in whole or in part on the fact that the persons or property affected thereby is to be transported to or has been transported from any port in a possession or dependency of the United States or in a foreign country by a carrier by water in foreign commerce, any lower rate, fare or charge than that charged, collected or received by it for the transportation of persons or a like kind of property for the same distance in the same direction and over the same route in connection with commerce wholly within the United States, unless the vessel so transporting such persons or property is, or unless it was at the time of such transportation by water, documented under the laws of the United States.

Whenever the Board is of the opinion, however, that adequate shipping facilities to or from any port in possession or dependency of the United States or a foreign country or not afforded by vessels so documented, it shall certify this fact to the Interstate Commerce Commission and the Commission may by order suspend the rates, fares and charges for the transportation by rail or person and such length of time and under such terms and conditions as it may prescribe in such order, or in any order supplemental thereto.

Such suspension of operation of the provisions of this section may be terminated by order of the Commission whenever the Board is of the opinion that adequate shipping facilities by such vessels to such ports are afforded and shall so certify to the Commission.

FINANCIAL SITUATION IN SOUTHWESTERN GRAIN TERRITORY

BY B. S. BROWN

The financial resources of the Southwest are being diverted to the grain interests in an effort to move the harvest. The credit situation is very tight and many industries are not receiving their usual allowance of credit. Local bankers say that there is much thrashing yet to be done which will require additional financing in addition to the large amount of crop credits now accumulated at Kansas City. The movement of the new crop is now in progress and the proceeds are finding their way into the country and city banks which is increasing deposits and in a measure easing up the tight money situation.

The *Monthly Bulletin* of the Kansas City Federal Reserve Bank issued July 25 says of the grain market. "In spite of the continued complaints of the shortage of cars the receipts of wheat at the primary markets of the Tenth Federal Reserve District in the month of June and in the 12 months ending June 30 established a new high record. Arrivals of corn and oats in the last 12 months

were in greatly reduced volume due to the fact that prospective war demands for wheat at the time of planting of last year's harvest called for the use of several million acres of land formerly planted in these cereals."

The *Monthly Bulletin* continues: "The volume of loans by the Federal Reserve Bank remain about the same status of a month ago. There has been no recent change in rates at the bank except on notes secured by U. S. Certificates of Indebtedness it has been increased from 5 per cent to the amount borne by the certificates themselves in interest. Country banks are borrowing for crop moving purposes while banks located in the reserve centers are slightly reducing their loans."

MARKETING CORN IN THE SOUTH

Because the Southern States are importing millions of bushels of corn annually, while certain sections of the South are producing surpluses, the

agencies. The man selling corn near home has a larger margin of profit because there are no freight charges.

There is usually a considerable difference between the price of old corn and new corn from the North. That part of the new crop from the South which can be marketed before the new corn from the North arrives should get the advantage of this difference in price. Good prices cannot be obtained, however, for any crop unless special care is exercised in harvesting, grading, and preparing it for the market. Husking rather than jerking, proper storage so as to prevent heating, and sacking in containers of proper size are all matters of importance. Corn that is to be shelled should usually be husked in the field when it is gathered. If corn is jerked it must be husked in the crib, adding labor and expense, and then shelled, or it must be shelled with a "shuck sheller," a machine that usually is not very satisfactory.

Practically all sales of shelled corn in this coun-



A TYPICAL CORN FIELD IN THE SOUTH

United States Department of Agriculture recommends the introduction of more adequate marketing facilities in sections of abundance and standard practices regarding preparation for market. To realize these ends will require concerted action on the part of communities concerned. The Department suggests that southern dealers and consumers handle and use southern grain wherever possible, and that local dealers' associations and chambers of commerce which have not done so already pass resolutions urging members to use native corn, and also hay, whenever available.

Since as much of the corn as possible should be used in the community where grown, every farmer should feed as much stock as he can. Those having a surplus should endeavor to dispose of it to neighbors. In this connection the advantage of some central agency to bring buyers and sellers together is pointed out.

In many instances cotton warehouses, oil mills, and similar buildings can be used as temporary storage places, thus permitting growers to hold their crop until the market is favorable. However, if they desire to store their crop on the farm, special care should be taken to provide cribs that will prevent damage by weather, weevils, and other

try are now made on the basis of Federal grades established by the Secretary of Agriculture. The Federal law applies to all interstate shipments which are made by grade, and requires that they be sold according to the Federal grades. Even though a given transaction does not come under this law, the buyer naturally is inclined to judge the corn according to these grades and make his price correspond. Therefore more widespread knowledge of proper grading is highly desirable for southern corn growers.

The Federal standards divide shelled corn into three classes, white, yellow, and mixed. The particular demand in the Southeast is for white corn, the various grades of this class usually commanding from 5 to 20 cents premium over similar grades of other classes. The Federal grades specify that corn to class as white must contain 98 per cent, by weight, of white kernels. Unfortunately, a very large percentage of the corn raised in the Southeast contains a considerable percentage of black, blue, red and yellow kernels.

Two things should be done to improve the color of corn grown in the Southeast. Farmers should select and plant more white seed of varieties suited to this section; second, concerted action should be

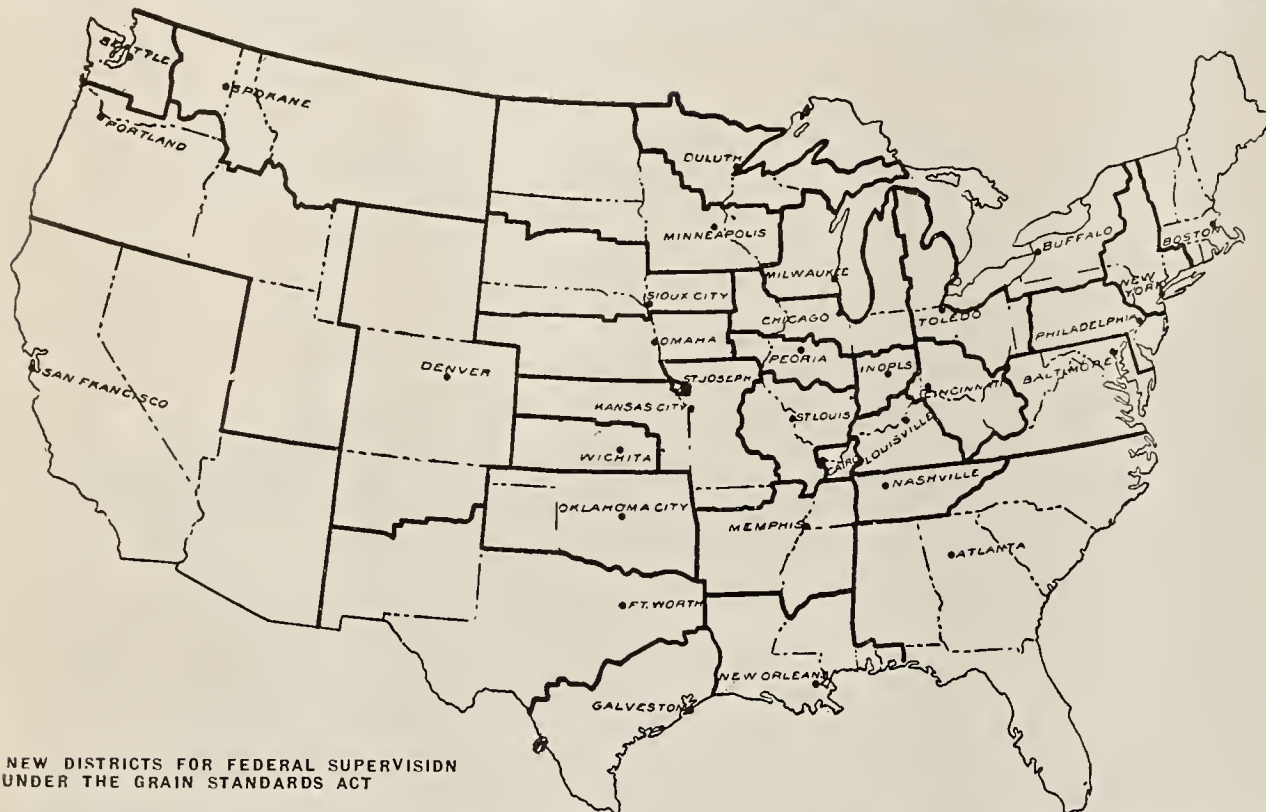
taken against various pests and bad practices in handling. Corn containing weevils, or other injurious insects, is placed in what is known as one of the "sample grades," which means that the only safe way to trade in it is by actually examining the corn or a representative sample. This necessarily narrows the market and places the grower at a disadvantage.

Damaged grains, also, are often the result of weevils, earworms, or similar pests. Corn should not be left standing long in the field after it is ripe, nor stored in poorly constructed cribs where it will be exposed to the weather. If corn raised in the cotton belt is not marketed too soon after harvest, there will be little trouble from excessive moisture—one of the factors in grading corn—except in that grown in mountainous parts of the

GRAIN-INSPECTION DISTRICTS REDESIGNATED

In accordance with the provisions of the United States Grain Standards Act the Secretary of Agriculture has redesignated the grain-supervision districts and their headquarters points.

The United States has been divided into 33 supervision districts, each of which will follow state and county lines entirely. The identification of supervision districts by numerals and many of the former dividing lines based upon railroad routes have been discontinued. Under the new arrangement entire counties are included in one or another of the districts named. These changes are expected to eliminate uncertainty on the part of the grain trade and licensed inspectors, especially in the case



Carolinas, Georgia, Tennessee, and certain places along the coast.

Another essential in preparing corn for the market is to avoid an excess of foreign material and cracked corn. This can be done by screening with a machine equipped with proper fans and screens. If corn is sold for grinding the mills usually want it in bulk, and some expense can be saved by shipping in that manner, although the largest demand in the South is for corn in bags.

If possible, arrangement should be made to have some agency in each locality where there is a surplus of corn, to purchase the crop when it is ready for delivery in the local market. This agency may be either a co-operative association, a local grain merchant, general merchant, oil mill, compress, cotton mill, or some responsible individual. The crop can nearly always be marketed more satisfactorily and at better prices by some such organization than by the individual growers.

County agents, farmers, or others desiring information relating to marketing or grading of corn are invited to communicate with the Bureau of Markets, United States Department of Agriculture, Washington, D. C. Additional information about corn handling can also be obtained from men in charge of the Department's exhibits displayed at various cities, or by visiting any office of Federal Grain Supervision, or an inspector licensed by the secretary. In the Southeast the offices of Federal Grain Supervision are located in Baltimore, Md.; Atlanta, Ga.; Nashville, Tenn.; New Orleans, La.; Memphis, Tenn.; Cairo, Ill.; Louisville, Ky., and Cincinnati, Ohio.

REPORTS to the Australasian Shipping Bulletin for June indicate that the stocks of wheat in Australia amount to about 52,000,000 bushels and that 20,000,000 bushels are to be delivered to the United Kingdom, leaving a balance of not more than 32,000,000 bushels, an amount insufficient for a year's consumption.

of county inspection points, that frequently resulted from the division of counties into two or more districts.

The redesignated districts and their headquarters points are enumerated alphabetically in Bureau of Markets Service and Regulatory Announcement No. 63 which has just been issued by the United States Department of Agriculture.

The addresses of the new district headquarters are as follows:

Administrative office, Bureau of Markets, United States Department of Agriculture, Washington, D. C.
General field headquarters, Room 1132, Webster building, Chicago, Ill.
Atlanta, Ga., 1712 Citizens & Southern Bank building.
Baltimore, Md., 610 Keyser building.
Boston, Mass., 1142, 141 Milk street.
Buffalo, N. Y., 98 Dun building.
Cairo, Ill., 6 Post Office building.
Chicago, Ill., 970, 208 South La Salle street.
Cincinnati, Ohio, 63-65 Fosdick building.
Denver, Colo., 509 Cooper building.
Duluth, Minn., 1-4 Sherwood building.
Fort Worth, Tex., 511 First National Bank building.
Galveston, Texas, 222 Security building.
Indianapolis, Ind., 827 Board of Trade building.
Kansas City, Mo., 310 Postal Telegraph building.
Louisville, Ky., 27 Board of Trade building.
Memphis, Tenn., 403 Exchange building.
Milwaukee, Wis., 821 Railway Exchange building.
Minneapolis, Minn., 406 Flour Exchange.
Nashville, Tenn., 807 Independent Life building.
New Orleans, La., 218 Pan-American Bank building.
New York City, 404, 204 Franklin street.
Oklahoma City, Okla., 221 Mercantile building.
Omaha, Neb., 738 Brandeis building.
Peoria, Ill., 807 Peoria Life building.
Philadelphia, Pa., 574 Bourse building.
Portland, Oregon, 519 Post Office building.
San Francisco, Calif., 1131 Merchants Exchange.
Seattle, Wash., 2304 L. C. Smith building.
Sioux City, Iowa, 335-338 Grain Exchange building.
Spokane, Wash., 516 Chamber of Commerce building.
St. Joseph, Mo., 803 Corby-Forsee building.
St. Louis, Mo., 817 Pierce building.
Toledo, Ohio, 2009 Second National Bank building.
Wichita, Kans., 313 Sedgwick building.

If you cannot tell from the accompanying map in which district you are located, write the Bu-

reau of Markets for the Announcement No. 63. The above addresses should be kept on file in case you wish for Federal inspection or information.

THIS MAY INTEREST YOUR FARMER FRIENDS

Fall seeding of oats has numerous advantages over spring seeding, where the fall-sown varieties can be successfully grown, as in the states of South Carolina, Georgia, Alabama, Florida, Mississippi, and Louisiana; in Virginia and North Carolina, except in the Piedmont and mountain sections; and in southern and eastern Texas, announces specialists of the United States Department of Agriculture, in Farmer's Bulletin 1119, entitled "Fall-Sown Oats."

Under the climatic conditions in those states the fall-sown crop usually yields better and matures earlier. The land can usually be prepared in better shape in the fall than in the spring. Fall seeding interferes less with other work. Poorer land and less fertilizer can be used. The fall-sown crop furnishes a cover for the soil during the winter and prevents washing.

The bulletin sets forth the varieties of oats that can best be grown in the South and details the soils and fertilizers that should be used. It is recommended that, wherever possible, oats should follow a cultivated crop. One of the best rotations for the cotton-growing section is: First year, cotton; second year, corn with cowpeas planted at the last cultivation; third year, fall-sown oats, followed by cowpeas. Outside the cotton-growing section a good rotation, including oats, is: First year, corn with cowpeas in the corn; second year, oats, with clover or grass seeded in the oats; third year, meadow or pasture. Other arrangements are also suggested.

The bulletin details the preparation of the land, the preparation of seed, the treatment of the seed for smut, the sowing of the seed, methods of seeding, treatment of the land after seeding, methods of harvesting, and the utilization of the crop.

Farmer's Bulletin 1119 can be had upon request of the United States Department of Agriculture, Washington, D. C.

NEW WYOMING ELEVATOR UNDER CONSTRUCTION

The cattle ranges of Wyoming are gradually giving way to grain farms, and elevator and mill construction are making rapid headway in the state to take care of the steady increase in cereal production.



ELEVATOR OF THE J. W. DENIO MILLING COMPANY, SHERIDAN, WYO.

struction are making rapid headway in the state to take care of the steady increase in cereal production.

The accompanying illustration shows a 150,000-bushel elevator now under construction by Balingier & McAllister of Bloomington, Ill., for the J. W. Denio Milling Company at Sheridan, Wyo. A corner of the mill, which is being erected by the Nordyke & Marmon Company, is shown immediately back of the elevator, and it is expected that both buildings will be completed at about the same time.

The elevator has a number of interesting features which will be shown in detail as soon as it is completed.

FLAX will show this year the largest crop it has ever turned out in the Northwest, according to a recent report from that section.

Peoria's New Elevator Completed

The Conover & McHenry Plant Receiving New Crop—Complete Equipment For Handling All Grain with Speed and Economy

THE Burrell Engineering and Construction Company have just completed the 500,000-bushel terminal elevator for the Conover-McHenry Elevator Company of Peoria, Ill., the plant consisting of a workhouse 41 feet 3 inches by 42 feet by 175 feet 6 inches above the base of the rail.

There are 12 storage tanks 18 feet in diameter by 102 feet above the base of the rail, six intermediate bins, and also 11 pocket bins. The track shed is provided so as to cover three rows of trackage and is 54 feet by 92 feet long. The drier building has a two unit Hess Grain Drier, of 500-bushel capacity each, and is 42 feet by 30 feet by 54 feet above the base of the rail. The drier building is also provided with a superintendent's office and washroom for the workmen. In the basement of the drier there are two 100-horsepower boilers, used to supply the drier with the necessary heat. The drier is supplied with grain from a divided

The machines are supplied with grain from the bins above and discharge the clean grain into the bins below.

The cupola is provided with four 2,000-bushel Howe Hopper Scales, telescopic trolley spouts being fastened to the spider under the scale for distributing the grain into the bins. The scale floor is provided with a scale man's office; also a fireman's pole from the scale floor to the distributing floor below, to facilitate the scale man's getting to the distributing floor and gallery over tanks in the shortest possible time. Above each of the scales is a 2,000-bushel garner, provided with a vent stack to give the air from the scales perfect ventilation.

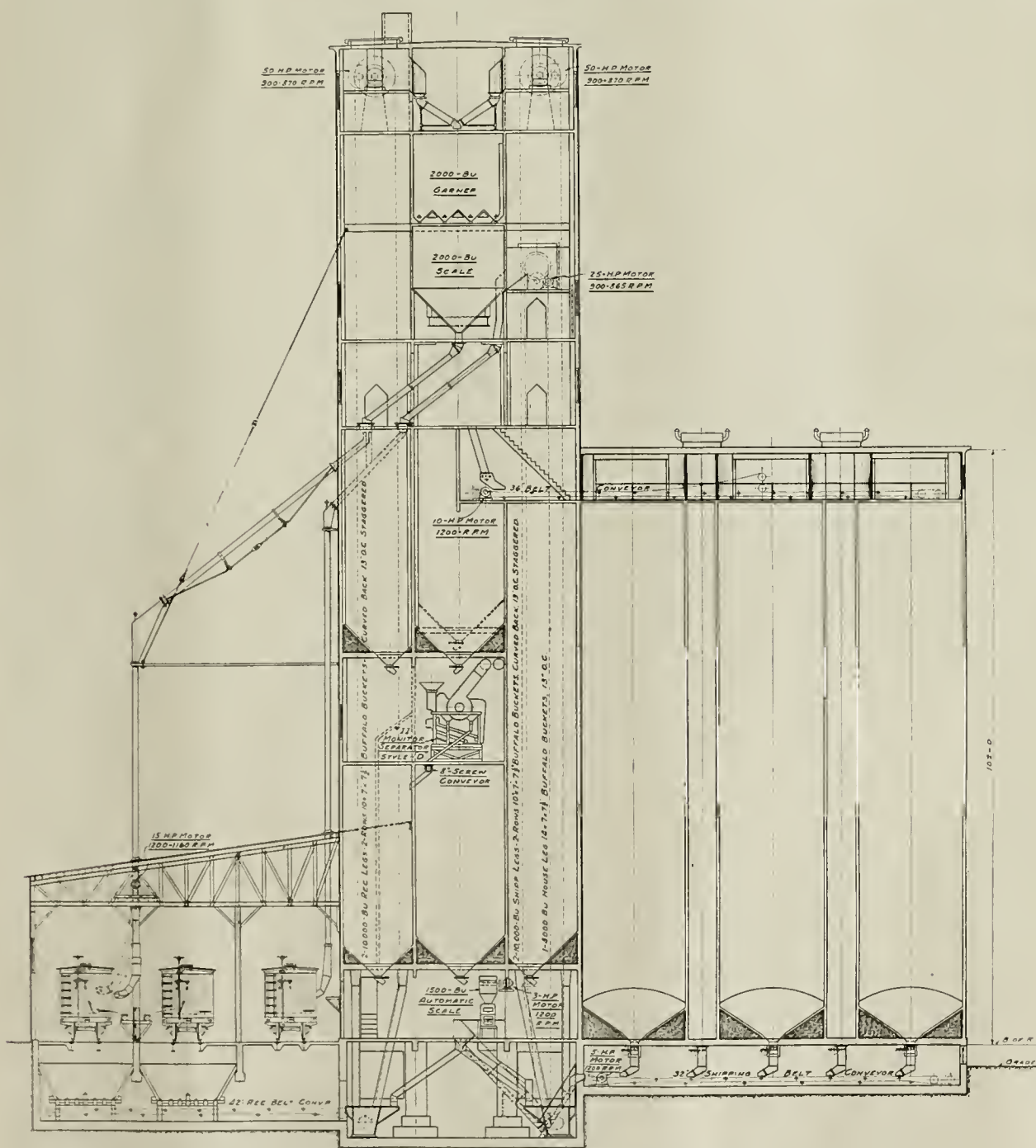
The receiving and shipping elevators are provided with turnheads so that each leg distributes into two garner. The workhouse is also provided with a spiral stair from the basement to the head floor; also a Humphrey Manlift from the first floor

on the first track and one shipping spout provided with a flexible joint between the second and third tracks to load grain into cars on either of these tracks. There are four sets of double shovel machines of the Clark pattern for unloading cars. The four receiving sinks under the tracks are sufficiently large to receive the car of grain.

There are two 42-inch receiving belts supplying the receiving legs with grain. All elevator legs throughout the building are concrete or are encased in concrete with steel heads and boots.

The Hamilton Rubber Manufacturing Company furnished the belting, their "Invincible" brand for cleaners and shellers, and "Levator" and "Lake-wood" brands for the legs and conveyors respectively. All machinery was furnished by the Webster Manufacturing Company.

All elevator legs are driven by cut gears from the motor to the countershaft, and cast-iron gears from the countershaft to the head shaft. Spout



SIDE ELEVATION OF THE CONOVER-McHENRY ELEVATOR

bin in the workhouse and discharges its grain over a belt conveyor into a 1,500-bushel automatic scale, and thence to the house leg and to the conveyor belt for storage.

The workhouse is equipped with two 10,000-bushel receiving legs and two 10,000-bushel shipping legs; also one 4,000-bushel house leg. The workhouse bins are divided in such a manner as to get an 18-foot cleaner story between the bins. There is one No. 11 Monitor Cleaner and one No. 8 Monitor Oat Clipper on this floor, and 8-inch screw conveyor being used to collect the screenings from these machines into the screenings bin.

to the head floor. A 3-drum, 20-car car puller has a 50-horsepower motor with cut gear connection.

The storage bins are equipped with two 32-inch shipping belts; also two 36-inch gallery belts, with a two-pulley heavy duty tripper on each gallery belt.

The roof over the gallery is surmounted with four 4x6-foot skylights and ventilator for the purpose of giving sufficient light and ventilation.

The grain is drawn from the storage bins by means of draw-off spout equipped with rack and pinion gates.

There are two main shipping spouts to load cars



CONOVER-McHENRY ELEVATOR, PEORIA, ILL.

conveyors are driven with a cut gear drive. Cleaning machinery is belt driven, all motors being of the General Electric type. All machinery supports throughout the building are made of steel. In fact, every precaution has been taken to make the house as thoroughly fireproof and as little liable to dust explosion as possible.

The elevator was opened for business on April 1 and since that time has been handling a large number of cars of both corn and oats each day. At the beginning of the wheat harvest, there was a special train put in operation by the Chicago, Peoria & St. Louis Railroad, known as the "Red Ball Special," which operated between Waverly, Ill. on the main line and Jacksonville, Ill., on the branch line for service to East Peoria only, necessitating the unloading of all cars at the Conover-McHenry Elevator.

This train consisted of a total of 26 cars which would arrive in Peoria each evening at 5 P. M., would be unloaded, re-coopered by 10 P. M., and returned to the country stations ready for loading early the next morning. In this manner the cars made a round trip each day and furnished about 40 stations on the Chicago, Peoria & St. Louis with sufficient cars to take care of the present harvest. During this movement, stations along this line have shipped a total of about 400 cars to the Peoria Elevator.

BUG FIGHTERS ORGANIZE

The Plant Protection Institute has just been organized with the advice and assistance of the National Research Council. The Institute is composed of a body of scientific experts on injurious insects and plant diseases and of manufacturers of insecticides, fungicides and chemicals and apparatus used in fighting the crop pests.

The Institute will support and direct research on the enemies of crops, shade trees and ornamental plants, and on the methods of their control. Also it expects to aid in disseminating information.



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ADVERTISING.

This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching persons connected with this trade. Advertising rates made known upon application.

CORRESPONDENCE.

We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

Official Paper of the Grain Dealers National Association and of the Illinois Grain Dealers Association

CHICAGO, ILL., AUGUST 15, 1920

A COMPLEX SITUATION

THERE is every prospect of a rather strenuous year for the flour millers of the country. The Shipping Board seems to think that flour should stand 25 cents greater ocean freight rate than wheat, which makes it difficult for millers to obtain business abroad, particularly as every importing country prefers wheat to flour, for the sake of employing home labor in manufacturing and because they need the bran and middlings as much as they do the flour; in fact for the very reasons that make us rather export flour than grain.

The situation growing out of this condition is that mills in America, with a total capacity of about twice our normal flour requirements, will enter into the sharpest competition among themselves for domestic business. After the large mills have supplied their regular channels of trade, they will throw their surplus into the country in competition with small local mills. The small units, which depend on local consumption, would have a dark future before them if it were not for the transportation tangle. The car scarcity which is such a burden to business in general may be the salvation of the small miller, who, with his motor trucks, is fairly independent of the railroads. No doubt, too, an effort will be made by producers to market all the wheat possible at the local mill rather than take his chances at the elevator which may well be already filled to capacity. In territories where the yield is light, like Illinois, Indiana and Ohio, the mills may get a far greater share of the crop than they do ordinarily, and the amount

of wheat handled by the elevators in those states be very disappointing.

Another factor which promises to be important for the small mill, and for the competing elevator also, is that so many of the mills have trucks and go into the country for their wheat, bringing it in, usually as a return load on deliveries. This enlarges the territory they would ordinarily draw from, and is a good selling as well as a good buying proposition.

TIME TO GET BUSY

COUNTRY and city newspapers for months have been fed a line of propaganda which they have swallowed "bait, hook and sinker." The following from an editorial in the Livingston, Mont., *Enterprise* is typical: "One phase of wheat marketing should receive the most thoughtful consideration of the exchange officials or of Government authorities: This is the high proportion of profit made by the middleman who handles the grain."

Column after column of variations on this theme have been published all over the country. Either the editors are ignorant of the truth, or else they deliberately stultify themselves to curry favor with farmer patrons. We give most of them credit for being ignorant as we know from war experiences what a tremendous force deliberate propaganda can be, and there has been for months such a propaganda by Government agents, state officials and farmer organizations.

It is high time that the grain trade get busy with a propaganda of its own, and it can have force because it can be founded on truth. It will undoubtedly cost a lot of money, but the alternative is the ruin of many grain dealers who have spent a lifetime in building up their business. The situation is serious and needs immediate and drastic treatment. It has been built up by propaganda and can only be met by the same measures. But haphazard and hasty efforts will not avail. It calls for the best thought, the wisest leadership and the most thorough cooperation that the trade has ever put into a movement, and we hope that the National Association meeting in October will not pass without a full discussion of the subject.

HAY GRADING

GRADING hay is a matter of the individual judgment of the inspector. There is no method of laboratory tests for hay such as can be used to determine accurately and scientifically the grades for grain. Inspectors can be trained to judge approximately alike, as has been proved by the National Hay Association in the inspectors at the 29 different markets who have been approved by the Association. But even with the experience and training these men have had they do not always agree, nor can it be expected that they should.

Over the greater part of the country, however, outside these 29 markets, hay inspection is in chaotic condition. Not all points even accept the National Hay Association grades

and there are wide variations in the grade given to the same lot of hay. This used to be a common complaint of grain grades also, but under Federal grades and supervision of inspection complaints are comparatively few and the method of appeal so simple that there are few grain shippers who have a quarrel with present day inspection.

There is no question but we need Federal hay grades or general adoption of the Association grades, and rigid supervision of inspection. Only by these means can the hay trade conduct its affairs on the strict business lines that they should; only when these measures are adopted will a hay contract become a definite document and assume a degree of certainty which it does not now possess.

EXPORTS OF GRAIN IN 1919-20

THE Department of Commerce on July 27, issued its report on exports for the crop year ending June 30. We find that 178,582,673 bushels of wheat were sent abroad, and 24,181,979 barrels of flour which reduced to wheat, equals 108,818,905 bushels, a total of 287,401,578 bushels.

Other grain exported were: Barley, 20,457,781 bushels; corn, 16,687,538 bushels; oats, 96,360,974 bushels, and rye, 27,540,188 bushels.

In terms of percentage of the crop raised during the year and without including the carryover from the year before, the exports were: Wheat, 30.5 per cent; corn, 0.54 per cent; rye, 29 per cent; barley, 12.3 per cent; oats, 7.9 per cent.

With the possible exception of corn and rye, our exports this year will probably not be larger than last, so that the present crop prospect indicates a safe margin of all grains for domestic consumption. Unmilled wheat exports may be greater than last year's, but the parity between wheat and flour freight rates, amounting to between 25 and 45 cents, is so great that the flour exports will undoubtedly be considerably reduced.

FARM ORGANIZATIONS TAKE DRASTIC STEPS

WHEN the American Farm Bureau and allied organizations met in Chicago last month to talk over perfecting a grain marketing organization for cooperative elevators, they went about it in a sensible way. A resolution was adopted providing for a committee of 17, made up of representatives of the various organizations interested, which will make a thorough study of terminal marketing conditions and draw up a plan by which the cooperative companies can market their own grain. This plan will be presented to each organization in due time; each one will take action upon it and appoint an accredited representative to a called meeting where final action will be taken on the plan and organization effected. A year or two will be used in perfecting the scheme.

There can be no quarrel with the plan so far. If the cooperative companies feel that they can handle grain at a terminal any better

or any cheaper than it is now being handled, they are at liberty to try. Handling commission at the various markets averages about 1 per cent. This is the lowest margin on which any commodity in the world is handled and there is some doubt as to whether any cooperative concern can better it. To begin with the cooperative representatives will be salaried men without a personal stake in the business. With the best intention in the world, it is the rare exception that a salaried man can manage any business as well as an owner. Time alone will show if the cooperative concerns can command these exceptional men.

This marketing plan is quite distinct from another which the Farm Bureau is working upon. This second plan proposes to organize a majority of the grain farmers of the country so that a monopoly will be effected and prices for all grain can be fixed by the farmers. Great enthusiasm was shown at Chicago over the address by Aaron Sapiro of San Francisco, who described the monopolies of raisin and prune growers and the success which has attended these organizations. He proposed that the grain growers organize along the same line so that farmers could dictate the price at which their grain should be sold. Mr. Sapiro is an able and convincing speaker, a shrewd lawyer, but he has something to learn about the international grain markets, and economics in general.

Both presidential candidates have come out strongly in favor of the cooperative marketing of grain products, and there will unquestionably be a marked increase in the movement during the next few years. That the principle is socialistic, or at least communal, and is a step in the direction of a material change in our form of government, the Government itself seems to have given no thought.

LIBERTY BOND PURCHASES CRITICISED

THE Government has come under severe criticism from several sources recently because it is buying up its Liberty and Victory bonds on the open market at less than par. Up to November 28, 1919, the Treasury Department had redeemed its own bonds to the amount of \$1,043,080,500, paying for them \$993,363,526.15. Since then further purchases have been made, bringing the total reduction on June 1, to \$1,784,210,467. The chief criticism is due to the fact that it began buying before the fourth Liberty loan was made and during the Victory loan campaign.

The fourth loan was made before the armistice was signed and there was then no means of telling how many more loans would have to be made. Many people subscribed for bonds and did not pay for them. They were thrown on the market and if they had not been absorbed they would have been discounted severely, which would certainly have affected future issues. The Victory bonds were issued because the Government needed a large amount of money to clear up the war work, and while that loan might have been reduced to the extent of the bonds purchased,

no one was cheated of a cent, for Government bonds always have been and always will be a good investment.

The whole trouble has been that millions, perhaps billions of dollars worth of bonds have been traded in or sold to purchase automobiles, furs, silk dresses and shirts and countless other luxuries which we demanded in the greatest spending orgy the country has ever witnessed. The Government cannot be blamed for taking advantage of our own foolishness.

A SEED WARNING

AFTER the many years of splendid work which the state experiment stations have done in improving seed strains for the various grains and in educational work emphasizing the importance of good seed, it would seem hardly necessary to send out warnings against the extravagant claims of yield, by which fly-by-night seed salesmen fleece the too credulous farmers. But it seems that many farmers in Indiana have succumbed to the wiles of a vendor of a new wheat seed which, of course, is supposed to make marvelous yields.

Professor W. A. Ostrander of Purdue advises as follows: "I am trying to fight an inroad that is being made upon us with a Junior No. 6 wheat, which is nothing but a selection of old Gold Coin or Dawson's Golden Chaff. It is a white wheat with which a New York concern is trying to bamboodize our farmers, telling them that they do not need to sow a bushel to the acre and that it will yield between 45 and 50 bushels. We are advising our county agents around Wabash, Huntington and Peru to leave it alone and give as much adverse publicity to it as they can."

With the many reputable seed houses in Indiana farmers have no excuse in patronizing an unscrupulous agency of this kind, and those who bought deserve all the disappointment that is in store for them.

CROP PROSPECTS

THE outstanding features of the August crop report were increases of 224,000,000 bushels of corn, 80,000,000 bushels of oats, 15,000,000 bushels of winter wheat, 3,000,000 bushels of barley, and 4,000,000 tons of hay over the estimates of last month, and a loss of 29,000,000 bushels of spring wheat. The prospect for feeding grains is excellent. Corn promises the third largest crop ever raised and oats the fifth largest, while barley is 30,000,000 bushels better than last year. Wheat is about 150,000,000 less than last year, but the carryover is so much greater that we will have almost as much for export.

The estimates in millions of bushels for winter wheat are 533, as against 518 last month and 732 last year; spring wheat, 262, compared with 291 last month and 209 last year; all wheat, 795, as against 809 in July; and 941 in 1919, corn, 3,003, compared with 2,779 last month and 2,917 last year; oats, 1,402, compared with 1,322 in July and 1,248 last year; barley, 196, as against 193 last

month and 116 in 1919; rye, 77.9 compared with 82 in July and 88.5 in 1919; flax, 14.3 as against 14.4 last month and 8.91 last year; hay, tame and wild, 107,200,000 tons compared with 102,400,000 in July and 108,600,000 tons in 1919.

WHY TAKE A CHANCE?

GRAIN dealers throughout the country have generally ceased to buy grain from the farmers as it is brought in. They accept all that is offered, up to their limit of capacity, and give a receipt for it, but do not buy the grain until they have cars to ship it, and then pay the market price. As a rule the farmers are quite satisfied with this plan, for they know that the alternative would be a margin which would protect the dealer on any market change which might arise during the possible long delay before the grain could be shipped.

Those shippers who are buying are using the hedging privileges offered, or else are taking a desperate chance for which present prospects afford no excuse. The market fluctuations during the past three weeks are an index of what may be expected for some months to come. There are too many factors to influence the market without the usual balance wheel of flexibility in accumulations; at one time one of these factors predominates and again another holds the stage, and the inability of the trade to judge of car mobility handicaps it in the effort to offset one influence against another. So the wise dealer, whatever his method, is playing safe.

PLENTY OF HARVEST LABOR

LABOR for harvesting and threshing seems to be plentiful everywhere, but in many cases it is not being used because of excessive demands in wages. Most laborers want 70 cents an hour and the more radical ask for \$1 per hour and an 8-hour day.

Neither farmers nor threshermen are inclined to pay these prices, and are standing out for 50 cents an hour for men and 35 cents for teams. These were the wages paid last year and brought big returns to harvest helpers. The work is hard and the hours long, but the men are well fed and can get steady employment through the season.

Farmers and threshers are joining forces and are getting along without the high-paid help. In other places grain is being stacked to await a more convenient season for threshing. This is the course of wisdom for it is quite likely that grain prices will not warrant the excessive labor demands. Where stacking is properly done the grain does not deteriorate in the least, in fact many experienced farmers believe it improves all small grain to go through the sweat in the stack. A great deal of grain will have to be kept back on the farm during the early winter and it is safer in the stack than in the average farm storage bin.

A sale of grain cannot be completed without cars. It looks as though it would take a long time to market the present crop.

EDITORIAL MENTION

Read the suggestions as to making out bills of lading in this issue. A properly executed bill is good collateral. One improperly made is worthless for that purpose.

The service end of the country elevator will count big in the next few years. Friendly interest in the farmers' affairs sometimes makes a cooperative company unnecessary.

In the next six years the railroads will require \$15,000,000,000 for upkeep and betterment, about as much as the war cost this country aside from loans to our Allies.

Rice is rapidly becoming one of our important cereals with a promise this year of over 60,000,000 bushels. We export more than we consume which is a pity, as rice is a good food.

Some papers are advising farmers to feed their low grain wheat. As wheat has slightly less feeding value than corn, the wheat would have to be very low grade indeed to make such a practice advisable.

Formal complaint has been made to the Interstate Commerce Commission on Railroad Leases and Sidetrack Agreements and has been assigned Docket No. 11545. Watch for action on this number.

The increased use of machinery is solving the farm labor problem. Next year machinery will probably be lower in price and its use will be further extended, until in time there will be no harvest labor problem at all.

Farm storage will receive a stimulus this year which will have an effect on marketing grain in all years to come. Perhaps the farmer will elect to carry the risk through the crop year instead of leaving it to the speculator.

The new freight rates will go into effect on August 26, but within 30 days after notice the carriers are required to file tariffs restoring the equalization of rates through the grain markets, after conference with interested shippers.

The elevator capacity of the Northwestern States, Minnesota, the Dakotas and Montana, is 225,000,000 bushels, and the probable yield of all grain will be 650,000,000 bushels. Grain stacks should be plentiful in that territory this year.

The Industrial Traffic League has come out strongly for advance of intrastate as well as interstate rates. But the state commissions are so close to the people, or rather to the votes of the party, that there is a fight on in almost every state for the needed increase. This is a question which we have to consider with a wider viewpoint than immediate per-

sonal effect. Can there be any comparison between the cost to business of poor equipment and terminals and increased freight rates?

There will be a continual fight against spoilage this year with elevators full and no movement. The first to suffer will be the damp grain and then the dirty grain. A drier and cleaner may save a lot of money for the country elevator.

The state estimate for Kansas placed wheat at 147,000,000 bushels; a few days later the Government report fixed it at 123,600,000. Whichever is right it is certain there is plenty to give much concern as to how it is to be transported.

Mustard is becoming a serious menace to the wheat fields in the Pacific Northwest. Like all other pests, mustard can be controlled by proper precaution and cultivation. In Europe this threat of weed dominance would not be tolerated; in this country we "take a chance" rather than get busy with the cure.

Montana has established state inspection with offices at Great Falls and Bozeman. W. O. Whitcomb will be in charge at the latter place. All intrastate shipments of grain passing through either station will be inspected, while shipments destined to other states will pass through without state inspection.

On July 1 there were 109,318,000 bushels of wheat in the country held over from the old crop, as against 48,561,000 bushels last year. Of this year's holdover the farmers had 47,756,000 bushels on the farms. That is what backward transportation does to the country. In some cases also it reflects the \$3-per-bushel attitude of the farmers.

If grain prices wait upon the export demand, be sure that the trend will be lower, for Europeans can afford to wait till the price is right. With their own crops being harvested there will be little buying for some time unless the price is attractive. Then look out for concentrated buying and a marked upturn. The season promises lumpy going.

Every financial agency is cooperating to help finance the grain crops, and farmers and the trade will need all the assistance they can get. The slow car movement will result in many frozen accounts which may take months to liquidate. But in the meantime much of the crop money will be turning over so there will probably be enough to go round.

An International Chamber of Commerce is being formed by representatives of France, Italy, Belgium, Great Britain and the United States. In this Chamber will be centralized data concerning economic and social conditions, the facts of production and requirements, and it will act as a coordinating instrument for suggesting regulations and legislative measures to facilitate and encourage eco-

nomie intercourse. Such an organization will be particularly useful to Americans, for we know less and, in the past, have cared less about foreign countries than any of the great commercial nations.

The Department of Agriculture has issued a special bulletin to farmers on Grain Dockage in which the methods of ascertaining dockage are fully explained with illustrations of the various sieves and other implements employed. The bulletin should have a wide circulation as many farmers do not understand the dockage system.

Farmers are complaining because grain prices have been reduced. They are not below the level consistent with the crop prospect, but they are out of line compared with manufactured articles. The farmers should bear in mind that grain prices advanced long before most other commodities did, and that it is only natural and necessary that they also lead the recession.

E. Q. Quamme, president of the Federal Land Bank at St. Paul, recently addressed a meeting at Minot, N. D., in which he stated that foreign buyers were responsible for the forcing down of grain prices as low as possible in order that Europe might purchase a vast supply. Unfortunately no one asked Mr. Quamme just how a buyer forced the price down. His explanation would be interesting.

The Merchant Marine Act under normal conditions will make considerable difference to exporters as, under the Act, export and domestic rates must be the same unless an American vessel carries the goods abroad. This will help our merchant marine, which at present is more important than favoring freight destined for export. As there are not enough American vessels to carry the freight offered this provision has been suspended until January 1, 1921.

It is gratifying to find a farm paper of the influence and standing of *Wallaces' Farmer* make the following editorial utterance:

There is no difficulty in stating the problem which the grain farmers of the corn belt have got to solve, if they are to do away with the wild fluctuations in prices of which they complain so justly, and with the unnecessary cost in getting their grain into the hands of the consumer.

First, they must devise a workable system for regulating the flow of grain to market. Second, they must do away with unnecessary middlemen. Note that we say "unnecessary." There are a lot of people who have appealed more or less successfully to the farmer's prejudices by loudly denouncing all middlemen who stand between him and the ultimate consumer of his products. These people are not true friends to the farmer. There must be middlemen, because the farmer's products have got to be worked over for the consumer. The thing for the farmer to do, therefore, is to examine the service rendered by these middlemen, one after the other, with a view to determining whether they are rendering that service efficiently and at a fair price, or whether the farmer himself through co-operative effort can do the work as well and cheaper.

No grain dealer can quarrel with this expression which seems to sum up the situation as well as we have seen it done.

W. T. HALE, JR.
Nashville

NEWS OF THE TERMINAL MARKETS

E. K. SHEPPERD
Indianapolis

CARS WILL BE SUPPLIED

Joseph Wild of E. W. Wagner & Co., Chicago, says: "There are only two grain factors—United States business and car supply. Bring on the cars and the grain advances will be moderate. The farmer has discarded fancy grain price theories and the recent buyers of high priced land now commence their struggle with costs. The September, 1920, situation is thus vastly different to one year ago. I believe the cars will be supplied—they will have to be supplied."

LACK OF CARS IS CLOSING ELEVATORS

"At this time there is not much local demand for any grain. The new crops are moving and a very good quality.

"The car situation is as bad as ever and a good many of the elevators are closed up on account of the transportation companies being unable to furnish equipment. As you know, we do not ship any grain into Lansing other than a few cars of corn and wheat for local consumption."—*Hankins-Wickens Company, Lansing, Mich. Letter of August 13.*

STOCKS LOWER THAN FOR SOME TIME

"The car service is in no wise improved and so far as the cash situation on grains generally is concerned, it is no trouble at all to sell as fast as shipments arrive. In other words, the demand, while not in any wise extraordinary for this time of the year, is sufficient to take care of all of our receipts. As a consequence, stocks at this point are perhaps lower at this time than they have been at any time for several years past during a similar period."—*Halliday Elevator Company, Cairo, Ill. Letter of August 13.*

WHERE WILL IT GO?

"The disposition, when and where of the apparently large Argentine corn surplus is rather puzzling. To date clearance have been comparatively slight. The prohibition of wheat exports from the Argentine now effective may bring out the greater part of her reported corn surplus of 237,000,000. Impoverished Europe can be depended upon to buy most sparingly. Should Argentine corn imports to this country of heavy volume fail to materialize, however, it will not be the first time that the trade has over-estimated the South American possibilities."—*Quinn-Shepherdson Company, Minneapolis, Minn. From late market letter.*

CONDITIONS AT DULUTH

"The movement of grain to the Duluth market has been on the decrease during the last few days caused by the country getting cleaned out of its old grain. A great many bulkhead cars have arrived during the last few weeks which always is an indication of the last run of the old crop. The new crop of grain has not commenced to move in volume, although there are a few cars of new rye arriving each day. Rye is the first grain coming into this market, and all indications point to a general movement of rye within a few days. There is no change in the car situation. It remains about the same as it has been during the last month.

"This market is favored for loading as the railroads are anxious to get the cars into Duluth so as to have them load back with coal. On account of the water transportation from Duluth it makes this point a good place to ship to up to the close of navigation which is around December 10. Cars

are handled with greater despatch on account of the convenient location of the railroads to the elevators."—*White Grain Company, Duluth, Minn. Letter of August 13.*

IMPROVEMENT IN CAR SERVICE

"The cash situation in our market is very strong on wheat and corn. Receipts are running light and not sufficient to take care of daily requirements. Oats are in better supply and we look for increase movement now that the new oats are ready for shipment from Ohio.

"The car service has improved materially, but the heavy run of corn seems to be over and in consequence I look for a steady advance in that commodity."—*S. M. Ratcliff, Buffalo, N. Y. Letter of August 13.*

OUR BOY SOLOMON DOPES IT THUS

"Will Germany turn Red? Red is the popular color in Russia. Will it become the popular color in Germany? Allies hope to save Poland and main-

within 10 days. Oats, however, continues steady in price despite the fact that the receipts are liberal. Of course oats sympathized with the advance in corn. In our opinion cash wheat and corn will be wanted and badly wanted during the entire current month and of course the demand will keep prices on the upturn. Would not be surprised to see wheat sell at \$2.75 during the month and corn possibly at \$1.80. Oats possibly at 80 to 85 cents.

"The car situation of course is serious and that occasions the light receipts."—*Nanson Commission Company, St. Louis, Mo. Letter of August 13.*

INDIANAPOLIS GRAIN MEN IN PHOTOGRAPH

A leading merchant of Indianapolis, Ind., himself not associated with the grain interests of the city, said in reference to the Indianapolis Board of Trade not very long after it had removed to its own building, "Watch that grain market grow." Asked for a statement as to the basis for his belief he said,



INDIANAPOLIS TRADERS STOP BUSINESS FOR THE CAMERA MAN

tain a buffer state between the two nations. They must prevent the Reds from cutting the railroad leading to Danzig, Poland's only seaport. German masses are discontented. They want a change. Their government is weak and could probably be overthrown without much trouble. Germany may turn Red hoping to escape an indemnity. German organization and Russian manpower and resources could in the course of years become a menacing combination. Can Russia bluff the Allies into revising the Versailles treaty? Russia still owes billions to France, but she will probably demand recognition and other concessions before she will agree to pay."—*C. A. King & Co., Toledo, Ohio. From August Letter.*

GRAIN TO SELL HIGHER

"The cash wheat and corn situation in our market is extremely strong and will continue strong unless receipts increase very materially. For the past week, the demand for cash wheat has been urgent on account of there being a few millers buying wheat in competition with export buyers. This together with light receipts advanced cash wheat by leaps and bounds.

"Corn has advanced over 20 cents per bushel

"It is composed of young men of intelligence, all of fine personality, keenly interested in their own success, with sufficient experience and capital to carry on their business. Its a well-nigh unbeatable combination, so watch my words and their smoke." It is regrettable that the author of this forecast has passed to the beyond for he was a true prophet and worthy of receiving honors in his own country.

The grain trade of Indianapolis itself, a decade ago, might have made use of the scriptural words, "It doth not yet appear what we shall be" for they have made a rapid and continual advance in all those things which in combination make up a modern grain market. In this connection a comparison might be interesting between the volume of business done by the Indianapolis Board of Trade in 1919 and 10 years previous.

The receipts of grain at Indianapolis during the year 1919 were, wheat, 7,650,000 bushels; corn, 19,147,000 bushels; oats, 11,774,000 bushels; rye, 376,250 bushels; hay, 1,636 cars. Ten years ago the receipts of wheat were 2,179,000 bushels; corn, 15,169,000 bushels; oats, 7,801,500 bushels; hay, 1,219 cars.

Grain shipped from Indianapolis during the year 1919 aggregated 1,420,000 bushels of wheat, 12,628,-

550 bushels of corn, 12,438,700 bushels of oats, 268,250 bushels of rye.

It is unfortunate that the picture from which our halftone was made was not larger in perspective. There may be some who would seek in the faces of the members of the Indianapolis Board of Trade some distinctive mark or sign that would show cause, as it were, for the success which has drawn acknowledgements from all central grain territory and markets. It is perhaps sufficient to state that the signs are there, and may be proven by a visit to the Indianapolis market.

As to characteristics of members not directly bearing upon the grain business, some information may prove interesting. For instance, a phrenological chart of a composite head of the membership would show hospitality very large but poetry very low. As proof of the former, attention may be directed to the annual entertainments given the Indiana Grain Dealers Association at which the hearts and pocket books of the members are opened to an extraordinary degree. For proof of the second statement it is only necessary to furnish copies of those poems in which members at the July meeting invited their friends to the regalements and luncheons served in their offices. This in spite of examples supplied by James Whitcomb Riley, General Lew Wallace and George Ade.

The bump of sports would be found very large. Two years ago the Indianapolis Board of Trade sent a picked base ball team from their midst, to meet a nine from Illinois on the occasion of the annual meeting of the Illinois Grain Dealers Association. This team gave an excellent account of itself and the picture of the nine was beautiful from every standpoint. Bouts and wrestling matches are always features of the annual dinner and outing of the Board of Trade Grain Club and an invitation to these affairs is much sought after by the grain men of Indiana and neighboring states.

However, our picture shows the Indianapolis Board in its work-a-day clothes so our articles must close with some work-a-day sentiments. Briefly it's this: The membership of that organization claims to have the liveliest market, together with advantages for giving the best service, and invites the grain trade of the world to tax its capabilities.

CAIRO THE THIRD LARGEST MARKET

"The wheat crop in this territory was practically a failure this season, consequently our wheat business will be of little importance. The corn acreage is the largest and prospective yield, the best in recent years. No oats of consequence are produced in Egypt. The majority of the grain handled in this market comes from producing sections of the central and northwest belts.

"According to the statistics gathered by the Bureau of Markets of the United States Department of Agriculture, Cairo was the third largest market in the United States in the volume of oats handled during the year closing with June, 1920, and although the demand in the territory served by this market is dead dull just at this time, the prospects are quite favorable for even a heavier business during the year ahead. Cotton and other southern staples are selling at such remunerative prices that the growing of grains has become a lost art in the cotton states. The shortest trade routes from the grain producing sections of the west to the southern consuming territory pass through Cairo which makes this the logical market for western shippers and in a good many respects the most advantageous for the distributors who serve the consumers of the South.

"The season just closing has demonstrated the value of intermediate markets in the handling of western grain on its way to the South and East. The record of the Federal Grain Supervision shows that about 75 per cent of all the corn which was billed through from western markets and producing points to southern distributing points during the germinating season without being stopped enroute for drying and conditioning arrived at destination more or less heating and badly damaged. Of the corn reshipped from Cairo and other markets contiguous to the southern territory, practi-

cally all reached destination in good condition. This shows very clearly the economic value of middlemen and intermediate markets."—*Samuel Hastings Company, Cairo, Ill. Letter of August 13.*

WELL KNOWN TRADER DIES

Dealers on the Chicago Board of Trade a dozen years ago looked up to Samuel C. Scotten as one of the leaders in that market. In recent years Mr. Scotten's activities in the grain trade have been less extensive than formerly as he had many other interests, but he was still a familiar figure around the Board, so that his death on August 5, was a shock to his many friends. It was not expected entirely as he had been suffering acutely with cancer for three months. Death occurred at Mercy Hospital.

Mr. Scotten came to Chicago in 1878 and entered the grain business at the age of 29. In 1907 he was president of Harris, Scotten & Co., brokers,



THE LATE SAMUEL C. SCOTTEN

and figured in many spectacular trades. He became a director of the Burlington Railroad in 1914.

Mr. Scotten left one of the finest private art collections in the country. Three daughters survive.

JOINT CAR INSPECTION BUREAU

On July 16, Joint Car Inspection by the Corn Exchange of Buffalo and Niagara Frontier Car Inspection Association became effective on all inbound railroad cars before going to the elevator. Since May 26, it has been effective at any unloading point in or adjacent to Buffalo.

For years past the Corn Exchange of Buffalo has operated a department of Car Inspection. Car inspectors examine all cars on arrival, noting any physical defects, also take complete arrival seal record, records the seal or seals removed for the purpose of making grain inspection, apply Corn Exchange serial number seals and make a complete record of same. If cars are reinspected on track this operation is repeated. On arrival of cars at the elevator they are again examined for physical defects and complete seal record is taken all of which is officially recorded.

The arrival examination and seal record, re-inspection examination and seal records and elevator examination seal records are certificated on Corn Exchange Car Condition Certificates and furnished to the consignee to be forwarded to the shipper. These certificates are issued on all cars whether or not the car shows defective conditions or seal record.

The new system recently put into practice provides for joint inspection of inbound carload grain at Buffalo to be made by the car inspectors of the Corn Exchange together with the car inspectors of various railroads. The inspection is made both at time of arrival and placement of cars at the elevator for unloading. The report is signed by both inspectors of the Corn Exchange and the representatives of the various railroads. The Corn Exchange issues the official car condition certifi-

cate furnishing same to the local consignee to be forwarded to the shipper.

Under this plan of joint inspection there can be no dispute between the claimant and the railroads as to the correctness of any exceptions noted as to the condition of cars or of seal record and its great value to the shipper in helping secure his claim is readily apparent.

CAR SITUATION WILL RULE

"Forecasting the probable trend of wheat prices with any degree of accuracy is useless. Too many 'ifs' obstruct a clear vision. Certain it is, however, that transportation will be a paramount factor. While the country's total supply is large, it remains to be seen to what extent it will reach the market. The available supply is bound to become the greater price determining factor eventually. If it is small and a healthy domestic and foreign demand should develop we would be facing a situation analogous to that existing in corn until recently. A situation created by a demand that will absorb available supplies and prevent accumulation of stocks cannot be remedied by the wheat back in the country, no matter how large it is. We hope that such a situation will not develop, but in these days of uncertainties it is well to reckon with any contingency."—*Simons, Day & Co., Chicago. From Late Market Review.*

NO IMPROVEMENT IN TRANSPORTATION

"Car situation in our market shows no signs of improvement and of course this means lighter receipts, when as a matter of fact our daily inspections are not sufficient to fill the demand. The market on wheat is a broad affair, with this grain selling higher on spot here than any other point of which we know. There is also good inquiry for rye, with practically no receipts.

"The demand for corn and oats, while not a broad affair, is larger than what we have to offer. Until general conditions change so it will be possible to get more grain of all kinds to the different terminals, we will continue to favor the long side.

"Higher prices have prevailed in this market in the past few years than any other of which we know. That in itself should be sufficient reason for anyone to use this market, for it cannot help but mean better returns on their investment."—*H. E. Kinney Grain Company, Indianapolis, Ind., Letter of August 14.*

PRESIDENT MANGELSDORF APPOINTS COMMITTEES

President F. H. Mangelsdorf of the Atchison Board of Trade, Atchison, Kan., has appointed his committees for the ensuing year. These committee appointments have been unanimously approved by the Board of Directors, and are as follows:

Cash Margin Committee—Edwin Lukens, chairman; W. S. Gabel, C. L. Weekes.

Membership Committee—C. H. Blanke, chairman; C. M. Sheehan, Blair Hackney.

Arbitration Committee—Arthur Lukens, chairman; W. S. Washer, W. A. Blair.

Quotation Committee—C. H. Blanke, chairman; C. M. Sheehan, Frazier Gutzman.

Elevator and Warehouse Committee—C. L. Weekes, chairman; Harry Martany, Carl Duehren.

Discount Committee—A. L. Jacobson, chairman; C. H. Blanke, J. W. Blair.

Transportation Committee—W. S. Washer, chairman; W. S. Traubel, Harry Martany.

Inspection & Weights Committee—David Lukens, chairman; J. G. Syphers, Vaughn Benjamin.

CHANGES IN MEMBERSHIP

Milwaukee.—Frauk Fowler of the Rialto Elevator Company has been elected to membership in the Chamber of Commerce; the membership of J. M. Jenks, deceased, has been transferred. Reported by Secretary H. A. Plumb.

Duluth.—The following were elected to membership on the Board of Trade: C. C. Baker, H. D. Stoker, G. C. Sullivan, G. T. Culhane, E. W. Berreau. The following have withdrawn their memberships: J. R. Marfield, M. G. Wisted, H. W. Hel-

lier, Jno. W. Barkell and O. T. Newhouse. Reported by Secretary Chas. F. MacDonald.

Baltimore.—New members on the Chamber of Commerce are: Milton A. Reckord, The Reckord Manufacturing Company, flour and grain; Cyrus C. Lewis, Gee-Lewis Grain Company, grain receivers and exporters. The memberships of John C. de-Bullett and Leonard M. Bruton have been transferred. Reported by Secretary Jas. B. Hessong.

Chicago.—Memberships on the Board of Trade have been granted to Albert E. O'Connell, Harry M. Paynter, Jr., Edwin A. Boerner, Thos. C. Brown, I. S. Gresham, J. S. Holmes, Geo. T. Ordway, F. T. Bedford, W. F. Halpin, Howard H. Logan, O. A. McFall and E. J. Weber. The memberships of the following have been transferred: J. D. Herklotz, Sefton Tranter, W. H. T. Foster, R. T. Dobson, W. G. Parkins, Wm. H. Holmes, F. S. Hughes, Geo. A. Weinberger, F. E. Gulick, L. C. Dillon, John Roberts and Estate of Chas. E. Stuart. Reported by Secretary John R. Mauff.

FRIDAY THE THIRTEENTH

Bert A. Boyd of Bert A. Boyd Grain Company of Indianapolis, Ind., evidently does not believe in signs, portents or divinations. The license number of his closed car is 13, that of his touring car is 1313, while his chauffeur's license number is also 13. Mr. Boyd reports no serious accidents have



"MY RABBIT'S FOOT'S WID ME, BOYS"

ever happened. Like Ajax he has successfully defied the lightning.

In the interest of the occult, and to seek to penetrate further into the mysteries of the sombre veils which supposedly conceal the luck of signs, will all those who have taken similar chances with the number 13, with no resulting accidents, please write us their experiences.

TERMINAL NOTES

Plans are under way for the formation of a grain exchange at Liberal, Kan.

Jay Hausam Grain Company of Hutchinson, Kan., has increased its capital stock to \$100,000.

The Pacific Grain Company, Portland, Ore., has increased its capital stock from \$1,500,000 to \$1,750,000.

O. B. Hastings of the Samuel Hastings Company of Cairo, Ill., is expected home from a short vacation in Colorado.

McCardle-Black Company of Indianapolis, Ind., has opened a branch office at Vincennes, Ind., with W. T. Ellis in charge.

Neil Brothers Grain Company of Spokane, Wash., incorporated a year ago at \$50,000, has increased its capitalization to \$100,000.

The McGraw Ritz Grain Company of Winnipeg, Manitoba, has changed its name to the Ritz Benson Grain Company. The capital stock is \$100,000.

H. T. Bickel has become manager of the Terminal Grain Corporation at Sioux City, Iowa, F. R. Warrick, senior as well as junior, having left the business.

The S. R. Washer Grain Company has accounted for the most valuable car of wheat it has ever handled in its 50 years of grain business. It was a car, received late in July by this company, of No.

1 Dark Hard wheat. It contained 111,760 pounds or 1,862 bushels. The value of the car at Atchison was \$5,327.22. It was handled on commission on the Atchison Board of Trade, and same was \$53.27.

T. E. Heald, formerly of Sedgwick, Kan., has engaged in the grain commission business at St. Joseph, Mo., under the firm name of Heald Grain Company.

The McCaull-Dinsmore Company of Minneapolis, Minn., received the first car of rye from the 1920 crop. It was of choice quality and graded No. 2, selling at \$1.80.

Frank J. Montmore, with the grain feed and flour firm of Richardson Bros. of Philadelphia, Pa., recently returned to his duties after a two weeks vacation at Atlantic City.

Frank L. Carey, former vice-president of the United States Grain Corporation has resumed his partnership duties with the firm of Hallet & Carey Company of Minneapolis, Minn.

The grain office at Carroll, Iowa, formerly conducted by the late J. R. Whitney, member of the Chicago Board of Trade has been taken over by R. W. Harper & Sons of Des Moines, Iowa.

Carl H. Langenberg, vice-president of the Langenberg Bros. Grain Company of St. Louis, Mo., recently returned from a four months wedding journey, spent mostly in China and Japan.

The Quaker Oats Company of Chicago, Ill., has leased the feed plant of the Globe Elevator Company of Buffalo, N. Y. and is now operating it. J. C. Fulde has left Chicago to manage the plant.

E. L. Glaser, president of Rosenbaum Brothers of Chicago was a visitor on northwestern exchanges early this month and in Duluth filed an application for membership in the Duluth Board of Trade.

E. F. Wyman, has resigned his position with the Canadian Elevator Company of Winnipeg, Manitoba, to take the general superintendency for Manitoba and Saskatchewan with the N. Bawlf Grain Company.

The Updike Grain Company of Omaha, Neb., is disposing of its country elevators, selling them to local grain dealers and farmers. They had formerly 150 country houses in Nebraska, which have been reduced to 10.

Owing to increased business the Taylor Commission Company of Atlanta, Ga., has enlarged its offices with additional office forces and will also open an office in the McCaull Building at Memphis, Tenn., about September 1.

The Warfield Grain Company of Minneapolis, Minn., received the first new wheat from the 1920 spring grown crop. It arrived from Waterville, Minn., and graded No. 4 Dark Northern. Two cars sold at an average of \$2.12½.

Robert Morris has become the Philadelphia manager for Taylor & Bournique Company of Milwaukee, Wis. He has been associated with the grain and feed trade of Philadelphia for years and is well and favorably known in that market.

The Northwestern Dock & Elevator Company of Portland, Ore., has been incorporated with a capital stock of \$100,000 by R. S. Tracy, H. E. Sanford, and Charles S. Cohn. It will maintain docks, wharves, elevators and warehouses, and deal in cereals, farm and food products.

Toberman, Mackey & Co. of St. Louis, Mo., have just mailed to their friends a very handsome wall decoration in the form of a reproduction in colors of a famous painting. It represents a young girl seated at twilight on the rocks bordering a lake which mirrors the last rays of the declining sun and is entitled, "Love's Young Dream."

The Atchison Board of Trade, Atchison, Kan., has inaugurated the publication of a Daily Market Bulletin which will not only contain Atchison's nominal quotations, cash sales, etc., but also information relative to outside markets, including Chicago and Kansas City futures and other valuable information to the grain industry.

Bert A. Boyd of the Bert A. Boyd Grain Company of Indianapolis, Ind., celebrated the thirty-fifth anniversary of his entrance into the grain business on July 24. On that date, 35 years ago, he accepted

the responsible position as office boy with Fred P. Rush & Co. and points to a record that in his entire experience on the Indianapolis Board of Trade he has never made a speculative trade nor owned a car load of grain. He calls himself just a "hired hand" and hopes he will always be contented to work for the other fellow.

Geo. E. Morrison & Co. have succeeded Bruton, Runge & Morrison, Inc., receivers and distributors of hay and grain at 119-121 South Calvert Street, Baltimore, Md. The principals of the new firm are Mr. Morrison and Herman Runge. Both men are well known in the grain and hay trade so have all facilities for carrying on a successful business.

The Marquette Elevator Company started in the grain business at Minneapolis, Minn., on August 1. W. D. Gregory is president of the Company, Charles A. Eaton, vice-president, W. A. Gregory secretary, L. S. Gregory, assistant secretary and W. J. Russell treasurer. The company has acquired the Stewart Elevator which has storage capacity of 600,000 bushels.

After 35 years of continuous service as a grain buyer at Pullman, Wash., Mayor W. E. J. Gentry turned over the office of the Kerr-Gifford Grain Company to Mr. Bollings of Colfax and has retired. Mr. Gentry has served with a number of larger firms in his 35 years experience and it is estimated his total purchases of wheat in that time will aggregate 7,000,000 bushels.

The Seymour-Wood Grain Company has succeeded the Seymour Grain Company at Buffalo, N. Y. This was one of the oldest and most reliable grain houses on the Buffalo Corn Exchange, having been established by Mr. Seymour over 25 years ago. As Mr. Wood has been with the firm for the past 23 years, the change is one in name only, and the policy and service which has distinguished this well known grain house will be continued as usual.

Frank G. Jackson and Edward Hymers have been admitted into partnership in the firm of Jackson Bros. & Co., of Chicago. Howard B. Jackson the senior partner of the firm who served as vice-president of the United States Grain Corporation for the past three years, has resumed his duties with the firm. William J. Farrell, chief grain inspector and Charles P. Squire, recently manager for the United States Grain Corporation have also become associated with Jackson Bros. & Co. in the cash grain department.

The Kelly-Huff Commission Company, Inc., has announced the opening of offices at 214-216 Rialto Building, St. Louis, Mo. The officers are, W. L. Malkemus, president-treasurer; C. H. Appel, assistant secretary; E. W. Lorch, assistant treasurer; C. J. Gundelfinger, formerly operating as Newman & Malkemus at St. Louis, which firm has been discontinued; W. T. Lingle of Bethany, Mo., is vice-president, W. M. Huff, St. Joseph, Mo., is secretary and B. W. Welsh, St. Joseph, Mo., all associated with Kellogg-Huff Grain Company of St. Joseph, Mo.

GOVERNMENT BOATS NOT TO CARRY GRAIN ON LAKES

Plans are now being worked out by the Interstate Commerce Commission and the railroads to insure the largest possible grain movement on the Great Lakes, Chairman Clark announced on August 9, at the conclusion of hearings at Washington, on requests for additional cars to move grain from the Northwest.

Chairman Clark's statement was made in reply to a suggestion by Governor W. L. Harding of Iowa, that the Great Lakes be used for transporting grain as a means of increasing car supply. There is enough tonnage on the Great Lakes to carry 122,000,000 bushels of grain from Lake Michigan and Lake Superior ports to Buffalo on a single trip, the Governor told the Commission.

The loading capacity for grain and coal on Great Lakes boats is equal to that of 75,000 cars, Governor Harding estimated, and added that the utilization of lake boats to the fullest extent would release that amount of equipment.

Governor Harding contended that the trouble

with the transportation of the country was the congestion between Chicago and Buffalo points and argued that if the lakes were used the situation would be relieved.

"If you will use what power and authority you have as to reducing the rates between the Lake Erie ports and the coast so that Lake bottoms will be used," Governor Harding said, "you can relieve the car shortage in the grain country and in the East very materially."

Use of Government owned vessels for grain carrying and for storage purposes was advocated by O. P. B. Jacobson, representing the Minnesota Railway & Warehouse Commission. Chairman Clark replied that the Commission had considered the question with the Shipping Board some time ago and that the consensus of opinions had been that shipping interests could not and would not use Government vessels for carrying grain.

Agricultural interests in the Northwest face

bankruptcy because of the present car shortage, the Interstate Commerce Commission was told by railroad commissioners and shippers from Montana, Minnesota, North Dakota and South Dakota. The Commission was asked to issue orders guaranteeing the car supply for the movement of the grain crops.

The spokesmen said indications were that the 1920 crop would equal that of 1918, and that failure to move it to market not only would ruin the growers but would seriously affect the remainder of the country, resulting in a food shortage.

J. J. Murphy, State Railway Commissioner for South Dakota, declared that the railroads of the Northwest had only 86 per cent of their box cars on their lines and that 20 per cent of those were unsuitable for grain loading. One of the difficulties the roads face in supplying cars, he said, was that they did not receive a dollar's worth of work for a dollar's worth of pay.

However, the exportation of 11,810,000 bushels of corn, 735,000 bushels of beans, and 1,322,760 bushels of millet is allowed, according to the American consul at Bucharest. The Government has placed a tax on the export of these foodstuffs.

GRAIN PROSPECTS IN SOUTHEASTERN EUROPE

The exportable surplus of grain in southeastern Europe will probably not amount to more than one-fourth of pre-war quantities. The wheat and rye situation in Roumania, which comprises old Roumania, Bessarabia, and Transylvania, is unsatisfactory, and it is hardly probable that any amount of these grains will be available for export in 1920, although a surplus of corn on hand is expected owing to increased acreage during the past few years, according to the report of the American trade commissioner at Warsaw, Poland, to the Department of Commerce, dated June 18, 1920. In Bulgaria and Yugoslavia the wheat and rye situation is considerably better, and the corn crop in both of these countries is also expected to be above the average.

The agricultural population of Roumania lives largely on corn, so that this crop has a considerable effect on the exportation of wheat and rye, even when the usual area is devoted to the production of the two latter grains. According to official statistics, however, the area of the principal cereal crops harvested in 1918 was about 15 per cent below the pre-war average, while the area of wheat and rye in 1919 was 4,509,575 acres, as compared with 5,312,650 acres before the war, a decrease of a little over 15 per cent. Although this decrease was more than offset by the increase in the area of corn, amounting to 6,140,453 acres in 1919, as against 5,119,912 acres before the war, little grain from the 1919 harvest has been exported.

The area of fall-sown wheat and rye in Old Roumania is estimated at only 1,853,250 acres, as compared with 5,065,550 acres before the war. It is quite improbable, therefore, that Roumania will have an exportable surplus on hand from the 1920 crop, and if any surplus is left over from the 1919 crop it will be retained for domestic consumption. Although the exportation of wheat and rye has been prohibited by the Roumanian Government during 1920, the exportation of 300,000 tons of corn has been authorized.

The outlook in Bulgaria is more favorable. Although there was a decrease of about 20 per cent in the usual harvest of wheat in that country during 1919, the increase in the corn supply for the same year brought the total production of all grains about to normal. Although the estimated total surplus of grain on hand in Bulgaria, including bread grains and corn, amounts to something like 200,000 to 300,000 tons, very little has been exported to date.

Prospects for the 1920-21 crop are doubtful. If we assume that the area cultivated is 10 per cent less than in pre-war years and the yield entirely normal, there would be available for export about one-half as much as in pre-war years, or about 300,000 tons.

Owing to the radical changes in the boundaries of Yugoslavia, only rough statements can be made in analyzing the grain situation of that country. Although much of the corn raised there during the season of 1919-20 was soft and unfit for export, and, although the acreage for all crops was much less than usual, the total grain harvest was apparently above home requirements.

The total exportation of grain to date, most of which was sold to Austria, was comparatively small, amounting only to 100,000 tons. If weather conditions are favorable, however, there is every reason to believe that Yugoslavia will have an exportable surplus of grain at the end of 1920 amounting to at least 500,000 tons, which ought to find a ready market if transportation facilities are available and public sentiment places no obstacle in the path of its efficient delivery.

The chief reasons for the reduction of the normal exportable surplus of wheat and rye in Roumania, Bulgaria, and Yugoslavia are the unfavor-

TRADE NOTES

The O. W. Randolph Company of Toledo, Ohio, has just installed a Randolph Grain Drier in the new plant of the Iowa Corn Products Company at Des Moines, Iowa. It is of type "F," 600 bushels capacity.

The B. F. Goodrich Rubber Company of Akron, Ohio, has a booklet on "Legrain" and "Carigrain" rubber belting which will prove a useful addition to the literature of every grain elevator. The company has so popularized these two brands of belting that they are to be found in very many grain elevators throughout the country and they are said to be especially noted for quality and length of service.

The Weller Manufacturing Company, Chicago, Ill., is now represented on the West Coast by the Oriental Supply Syndicate, Inc., of 688 Howard Street, San Francisco, Calif. This branch is in a position to quote prices on the full line of Weller elevating, conveying and power transmitting machinery as well as grain and rice driers, portable bins, steel chain, equipment for canning plants, etc.

The demand for Kennedy Car-Liners has not only increased rapidly in the United States but in Can-

Elevators. The Preston-Lansing Tile "Ship Lap" Blocks are used for the construction of one bin, a group of bins or a complete grain elevator, including warerooms, head-house, offices, etc. The blocks require a minimum contractor's equipment, save all form lumber and labor of erecting forms. Particulars are all set forth in the folder which will be mailed to any address on request.

A. C. Barbeau, president of the S. Howes Company of Silver Creek, N. Y., will sail from New York on August 28 for London and the continent. He will spend a couple of months looking over conditions in those countries. The company's London office is at 64 Mark Lane.

RAILROAD EMBARGOES DO NOT AFFECT THIS SHIPMENT

The Invincible Grain Cleaner Company of Silver Creek, N. Y., does not depend solely on the railroad for shipment of their machinery. It is not infrequent that customers within a radius of 400 miles call for their machines with their motor truck and the accompanying pictures shows the Hickox-Rumsey Company of Batavia, N. Y., with



TRUCK AND TRAILER LOADED WITH INVINCIBLE SEPARATORS

ada as well. In order to facilitate the manufacture and sale of the liners in the Dominion, the Kennedy Car Liner & Bag Company of Shelbyville, Ind., is operating a branch factory at Woodstock, Ont. They have complete facilities there and will give Canadian shippers the same excellent service as has been given for years past from the American plant.

A very attractively printed and illustrated folder has come to us from the J. M. Preston Company, Lansing, Mich., manufacturers of the Preston-Lansing Vitriified Tile Storage Bins and Grain

Invincible machines at the Silver Creek plant loaded on a Federal Truck and Trailer.

The machines consist of one Invincible Twentieth Century Milling Separator, and two Invincible Compound Shake Double Receiving Separators. They were loaded late in July and by this time are in operation in the grain and seed plant of this Batavia house.

ROUMANIA has prohibited the exportation of wheat, rye and oats in order to assure sufficient stocks for consumption and for seeding purposes.

able weather conditions of last fall, which affected the crops all over southern Europe, the shortage of animals and farm machinery, disorganized transportation, the changes in the system of land tenure, especially in Roumania, and the consequent decrease in the acreage devoted to the production of these crops.

The following table shows the average pre-war production of wheat, rye, and corn in Roumania, as it is at present constituted:

WHEAT AND RYE			
Country	Production Tons	Consumption Tons	Exportable surplus Tons
Old Roumania.....	2,500,000	950,000	1,550,000
Bessarabia	1,000,000	500,000	500,000
Transylvania	(1)	(1)	500,000
CORN			
Old Roumania.....	2,800,000	1,600,000	1,200,000
Bessarabia	800,000	800,000	None
Total	7,100,000	3,850,000	3,750,000

¹No data available.

A summary of the figures sent in by the trade commissioner shows that the total pre-war exports of wheat, rye, and corn from Greater Roumania amounted to 3,750,000 tons, from Bulgaria 590,000 tons, and from Yugoslavia 500,000, making a total of 4,840,000 tons. Although there were no exports of these commodities from Greater Roumania during 1919, there probably was a surplus of 200,000 to 300,000 tons in Bulgaria. Up to the present about 100,000 tons of grain have been exported from Yugoslavia, although the surplus was estimated as much larger. Roumania has also exported some corn.

It is estimated that no surplus of wheat and rye will be available for export in Greater Roumania, although this country will probably have a surplus of 300,000 tons of corn. There may be a surplus of 300,000 tons of grain available in Bulgaria and 500,000 tons in Yugoslavia by the end of 1920. If these figures are correct, it would mean that there would be a total export surplus of 1,100,000 tons in these countries as compared to 4,840,000 tons available for export previous to the war.

"BUSINESS" VERSUS EFFICIENCY

IV

BY J. A. DEMUTH

By an unaccountable twist of the intellect which the writer is supposed to have special charge of, there occurred near the end of his second article, a ridiculous distortion of a dictum which has come to have a firmly established place in his philosophy of things, concerning which things he has arrived at fixed convictions—until he has lived longer and learned more.

The "dictum" is as follows: "Conformity with essential and fundamental principles is demanded in the successful accomplishment of any beneficent end, whether the means to the end involves physical or mental instrumentalities." And then here is another dictum—also home-made, which applies to what is to follow with pertinence plus—if you'll believe me. "Whether it is a social, political, economic, mechanical or electrical problem, its solution must embody recognition of truths and principles which have been established by objective experience." Now for example, consider the mechanical time register: Numerous types have been invented, the inventors of which have one and all proceeded on the principle that employes' time to be accurately and dependably recorded, must be recorded by a mechanical transference of time as indicated by a clock. Which is good as far as it goes, but it overlooks the real objective, which is that every registrant must be clearly and positively identified with his registration. The autographic register is the only type in use that accomplished this end. In this type the clock has printed the time, and the employe has attached to the imprint his own signature. Thus it is clear that the latter functions to the desired end, whereas the former simply furnishes a series of mechanical imprints of time, which are entirely indeterminate in reference to desired ends. Yet in the industrial and commercial cosmos, where there

is to be found one autographic register there will be found perhaps a thousand mechanical recorders, which record time only—leaving the immensely important point of identity of registration with registrant to wholly extraneous evidence. Whether a certain registration was caused to be made by John Smith or James Brown is a question upon which the mechanical register sheds not the slightest ray of light; whereas a registration at the autographic register positively identifies the person who made it. Now, in the face of these facts is it not clear that mechanical register is decidedly inefficient in comparison with the autographic register? And as makers of mechanical registers are also makers of autographic registers, why are the latter so "hopelessly in the minority" in actual business? Why do not efficiency experts recommend the more efficient machine. These questions will be answered in due course of the development of the symbol system. For of course there is an answer.

As has been claimed—perhaps not too modestly—the injection of symbols into the science of accounting, as a safeguard against errors, and later against dishonesty and fraud, is an original idea first used in actual practice in its adaptation to grain elevator scales. The second adaptation of the symbol idea was in connection with loading marine vessels with elevator stored grain; in which connection the objective was not precautionary means against errors in weighing, but merely against omissions of entries. Both of these intentions met with serious opposition—the latter with practical suppression, by a stupid error in construction, as has been related.

It will be remembered that nothing more was claimed for the improved check beam than that it was a sure detector of *bona fide* errors in reading and transcribing figures. And that the hopper register—which never saw much of the world, justified its being—or would have done so, but for untoward circumstances, as being a reliable counter of drafts of grain when being loaded into vessels from grain elevators.

The latest applications of the symbol system are quite numerous, practical and dependable. It remains to be seen whether any of them will meet the fate of the hopper register. Here is a list of the uses to which it can be applied:

- (1) Timekeeping for employes.
- (2) Watchmen's service, with hourly reports.
- (3) Cost keeping on job work.
- (4) Record of entrances and departures to and from industrial plants and business houses, at times other than regular business hours.
- (5) Auto "roll calling" for universities and colleges.
- (6) Proved records of elapsed time for various uses—notably long-distance messages.
- (7) As the central feature of a system of accounting which enables a general officer of a company to put himself in possession of the daily labor cost before it is known to any employe.

By a system of accounting, made possible by the use of symbols, the following features of mechanical registering are eliminated:

- (1) Clock manipulations; (2) supervision of registering; (3) congestion at entrances and exits; (4) computing elapsed time; (5) errors in cost computations; (6) all form of payroll frauds; (7) the expense and use of individual time or pay cards; (8) the expense of providing and preparing new payrolls weekly.

These remarkable advantages are added:

- (1) Registering by wage units, at small and inconspicuous registers, placed conveniently to employes' places of occupation; (2) assignment cards issued by requisition of the superintendent, from a general officer, and returnable via the head of department, the paymaster, and the auditor; (3) all partial lost time (occasioned by late arrivals or early departures) is reported in net time by the employes themselves; (4) daily balances of labor cost between paymaster and auditor, and between auditor and the general officer, of whom assignment cards are requisitioned; (5) pay checks may be balanced with the auditor before being issued and amounts balanced with totals in possession of the general officer (the treasurer perhaps, or a vice-president).

It is estimated by a very competent authority

that 90 per cent of employes arrive and leave on schedule time. It must be assumed, of course, that the employes constituting the 90 per cent are not always the same employes; so that it would not be a fair statement to imply that 90 per cent of any force are handed their pay checks for the next week without there having been made a scratch of a pen in their behalf. But if 50 per cent of the employes come and go during the week on schedule time, and it is true that this proportion is comprised of the same persons, then it would be absolutely true to say that with the symbol system half the number of any force of employes occasion not a single stroke of clerical work during the week, barring the writing of their pay check.

Will the expert accountants who make a specialty of installing methods of greater efficiency take notice of this statement? If not, why not?

If those who are familiar with the limitations and shortcomings of the mechanical registering devices are inclined to doubt the claims made for the symbol system because of their seeming impossibility—viewed from the mechanical register viewpoint, they should consider that as the symbol system is a direct reversal of mechanical methods so its possibilities are, logically, radically different. Moreover they are hereby assured that the symbol system has been critically and exhaustively examined by experts who are financially interested in mechanical registers, and who have volunteered their admissions that the symbol system is above criticism (considered in relation to efficiency).

The most adverse criticism passed upon it, by still another expert, similarly situated and qualified as the first, was entirely from the viewpoint of the manufacturer. The objection was that it is so extremely simple that its cost to manufacture was too utterly obvious—or words to the same effect. To be sure its appearance, so far as the appearance of the clock is concerned is certainly agin' war-time profits; but objectors on this score overlook the fact that the whole plant is not visible when inspecting the symbol clock. With the mechanical system the clock is the whole thing—the main push. Indeed the wall space it occupies is mentioned among its good points.

To those who gained an insight into the principle by which the hopper-register frustrated effectually any attempt of tallymen to adjust their hand-made tallies with the grain made tallies, as shown by constantly changing symbols, the application of changing symbols to the recording of employe's time will be readily understood. A belt, operated electrically by the clock, carries 61 symbols forward at the rate of one symbol every two minutes. The belt is therefore two hours and two minutes long. So that starting at a given time by the clock, the belt will lack one symbol of synchronizing with any even two-hour period. So that the belt will fall behind one symbol for each successive two-hour period. As on the wheels of the hopper register, the symbols follow each other in indiscriminate order. As the belt operates in conjunction with successive two-hour periods, it is impossible, without the symbol key, to determine the identity of the period to which a symbol that is shown by the clock is related. In short, while the symbols recur at certain intervals they are practically in conjunction with different periods of time, for weeks and months.

Stepping the belt forward a few symbols and starting anew with a given hour, would start a new series of combinations which could be located only by the use of the symbol key. Thus the transference of the symbols from the clock to the registers in the exact sequence as they appear at the clock, together with the employes' signatures, provide unquestionable evidence of the employes' coming and going.

The practical suppression of the hopper register, either by misconception or intent, raises the question as to how far or to what extent Government may extend its aid in the encouragement of invention. Isn't it downright irony to issue letters patent on the grounds of aid to invention, and afterwards to withhold all recognition of the invention and the inventor? Under present conditions are the letters patent anything more than official notice to

the inventor that he is now empowered to defend his rights in court in case they are infringed upon? The inventor already has that right in respect to all other property he has acquired—why should the Government assume to confer, in consideration of a special fee, a right which non-holders of letters patent are possessed of without payment of fees? If the Government were logical and consistent should it not have some part in protecting and conserving the benefit to the public, inasmuch as the benefit is the main justification of the issue of patents?

In its new capacity the symbol system has entered the lists as the arch enemy of payroll stuffing in all its forms. My first sight of a time register at once suggested an application of the aborted hopper register as a remedial measure of a shortcoming which was at once apparent upon the occasion of this first sight. That the employes of the village postoffice, in which I first beheld a time recorder of the earlier type, held this new fangled thing in contempt was manifest, by their ribbald remarks concerning it. I queried a carrier, who delivered up our way: "Does your new registrational appurtenance bring the boys in on time betimes in the mornin'?" "It does that," he replied with decided emphasis, "that is, as far as the register is concerned," he added, with a slight wink of his off eye. "If we see that one of the boys is going to be late we just ring up for him for fear he will come in in such a hurry, when he does come, that he will forget to attend to the job."

"Now-what-does-that-machine-remind-me-of?" I soliloquized. "Oh, now I recall it—Mr. Patrick Murphy's Register Wheelbarrow, to be sure." Pat's inventive genius had been invoked primarily in the interests of his boss. At a noon hour, under the grateful shade of a spreading maple Pat gave to his boss a detailed description of his invention. The "invinslun" was, in the main, for the "convaneyunce" of the boss. Here under the maple, with his poipe and poiper he could enjoy himself, returning to the track at quitting time in time to read the record of the trips each man had made. "All ver-ry foine—(puff, puff) but Pat—(puff, puff) phats to hinder you from a settin' under a three at the luther ind av the thrip, a turnin' av you wheelberry down side up and a makin' of yer patent rigister rigister as manny thrips as ye loike?" By which observation the boss justified his appointment as foreman of the gang. Just as there was nothing to hinder one "buddie" to register for another at the village postoffice.

Now that the symbol possibilities have apparently come to an end—these being about 1,000 per cent more than was dreamed of when I conceived the idea of applying the dead-and-buried hopper register principle to time keeping, it seems to be in order that comparisons be made between the almost universally accepted principle of time recorders and the entirely new and original principle of grouping employes in units with the object of facilitating labor cost accounting. With mechanical registering employes are counted in and out like live stock; with the symbol scheme we kindly request employes to register at their own special registers in order to facilitate the cost accounting of the concern. Instead of making a scramble to get at the clock, if two or three arrive at their special register at the same instant, there is time for deferring, one to another. Coming and going they are men and women.

The symbol register is in direct line with the new democracy between employer and employe; if the latter is under obligation to the former, so is the former under obligation to the latter. Industrial management that recognizes the growing necessity for more genuine democracy between producers and directors of production, will not be able much longer to ignore the fact that most producers are endowed with sensibilities quite as refined as their own. If 90 per cent of the average group of employes arrive on time, it is because they have a sense of obligation; and having this sense they naturally feel the presence of monitors as a stigma upon their character.

None of this class of employes will fail to recog-

nize that heads of departments are not in the same category with watchmen, monitors or spies. Heads of departments are necessary in a way that reflects no discredit upon employes, and if those in charge of departments have the kind of tact that they should have, they can avoid wounding the feelings of sensitive employes and still acquire knowledge of the relative worth and ability of all under their charge. A tactless, coarse foreman, head of department, boss or even employer, will see his finish in the near future. Those who produce are beginning to have a keener sense of their relation to things produced. Producers are themselves not mere products. Producers are endowed with individual initiative. If the truth were known producers are probably as instrumental in the creation of wealth as are the engineers of production themselves.

It is seldom true that a great manipulator of wealth has created or assisted in the creation of the product or invention through the exploitation of which that great wealth was made possible of accumulation.

A BRITISH VIEW

Sir James Wilson recently published an estimate of the world's wheat prospects and requirements which is of interest, as it is based upon official British estimates for all countries. He uses the English quarter in his figures, the quarter being 480 pounds or eight bushels.

On August 1 he estimates that in all countries there was an old wheat exportable surplus of 125,000,000 quarters. This includes 55,000,000 quarters in southern Russia and Rumania. If that be deducted there remains an exportable surplus of 70,000,000 quarters; 40,000,000 quarters from the United States, 7,000,000 quarters in Australia, and 23,000,000 in India.

As to the new harvest he says:

As regards the probable out-turn of the harvest of 1920-21, India has already reaped a harvest officially estimated at 103 m. q. (million quarters), as compared with 76 last year and with the pre-war average of 96. According to a rough estimate, based upon the information at present available the yield of the harvests to be reaped between February, 1920 and February, 1921, may, in 15 countries which between them produced 63 per cent of the world's pre-war total yield, be reckoned as equivalent to 107 per cent of last year's yield, and to 104 per cent of the pre-war yield. The importing countries (including Germany) seem likely to have a total yield equal to 117 per cent of the last year's poor yield, and to 90 per cent of the pre-war average, and, as they are increasing their efforts to reduce their import of wheat from abroad, it may be roughly estimated that the total net import of all importing countries in the world during the coming cereal year will not exceed 150 m. q., as compared with 145 in the cereal year now ending, and with the pre-war average of world's net imports of 167. Of the exporting countries an official forecast has been issued by the United States, which gives the probable yield as 213 m. q., as compared with 256 m. q. last year, and with the pre-war average of 187; and, allowing 165 m. q. for home consumption, as compared with the pre-war average of 158, the present probability is that the United States will be able to spare for export from the coming harvest 48 m. q., besides the 40 m. q. of old wheat estimated as the exportable surplus remaining on August 1, 1920, making a total of 88 m. q. available for export from that country during the cereal year ending with July, 1921. (The pre-war average export was 29 m. q.). The area sown with wheat in Canada this year is officially estimated at 17 million acres, compared with the pre-war average of 10.6, and, if the out-turn this year is equal to the pre-war average of out-turn, the yield will be about 90 m. q., and Canada will be able to spare for export 55 m. q. Adding similar estimates for the other exporting countries, it seems at present probable that from their harvests of 1920-21, all the exporting countries in the world will be able to spare 151 m. q., which, added to the 125 m. q. of old wheat left on August 1, 1920, will make a total exportable surplus for the year 1920-21 of 276 m. q. (1,020,000,000 bushels). If all the importing countries of the world will not require to import more than 150 m. q., then on August 1, 1921, the exporting countries will be left with an exportable surplus of 126 m. q. of old wheat, as compared with 125 m. q. on August 1, 1920. These estimates include 55 m. q. as possibly exportable from Russia and Rumania. If it be assumed that there will be no export during the next 13 months from those two countries, then the total surplus available for export during the coming cereal year in the other exporting countries will be 221 m. q., and, if the total import be 150, those other countries will be left on

August 1, 1921, with an exportable surplus of old wheat of 71 m. q. These totals still include an estimate of the exportable surplus from India of 33 m. q., and, if it be supposed that the present prohibition of the export of wheat from India will be maintained up to August, 1921, then the estimate of the surplus available for export during the next cereal year must be reduced to 188 m. q. (United States, 88; Canada, 55; Argentina, 22; Australia, 21; other countries, 2), which will be enough to meet the estimated demand of all the importing countries in the world of 150 m. q., and to leave those exporting countries on August 1, 1921, with 38 m. q. of old wheat in excess of their own needs for consumption and carry-over.

If these estimates are approximately correct, it may be reckoned that, if the future weather in the world generally proves neither exceptionally favorable nor exceptionally unfavorable, and if no wheat becomes available during the next year from India, Russia or Rumania, the other exporting countries will have enough wheat to supply all the probable needs of the importing countries, and to have on August 1, 1921, a two months' supply of old wheat left over available for export, besides their carry-over. An unfavorable feature of the situation from the point of view of the importing countries is that by August 1, 1920, the wheat surplus of the Argentine and Australia will have been almost exhausted, and that little more wheat can be expected from the Southern Hemisphere until next January. Canada, too, will have exhausted her wheat surplus by August 1, and will not be able to export much more until October. Thus the only source (outside India, Russia and Rumania) from which any large supplies of old wheat can be expected between August 1 and October will be the United States, where there apparently will be on August 1, 40 m. q. of old wheat still available for export as well as the produce of the new harvest.

SUGGESTION ON RAILROAD CLAIMS

"Unless there are two car inspections at terminals, one on arrival to ascertain leakage before repairs by the railroad are made, and the other at the elevator to discover the numerous leaks arising during switching through the yards, you will have shortages and apparently clear record cars. This results in either heavy compromises or declination of the claim," says Owen L. Coon railroad claim attorney of Chicago.

"Milwaukee, Chicago, St. Louis and Minneapolis have absolutely disinterested weighmasters and two car inspections. Indianapolis, Cairo and Toledo have double car inspection, but no disinterested weighmasters. An apparently excessive number of shortages have been arising on cars to Indianapolis with car reports marked: 'Grain Door Bulged—Leaking.' Kansas City and Omaha have disinterested weighmasters, but no double car inspection. Cedar Rapids, Davenport, Nashville, Memphis, Oklahoma City have neither double car inspection nor disinterested weighmasters. Car inspection records from Memphis are very poor. When you ship to a market without disinterested weighmasters or without double car inspection, you should do so only after exacting enough margin to be able to assume the loss that is bound to arise every so often on uncollectible shortages.

"I would advise cleaning all Federal claims up at once, as under a new order, all claims vouchered for over \$250 must be approved by Federal officials, the former limit being \$500. I look for the limit to be still further reduced and such approval to be given slowly and in many cases withheld entirely."

ACCORDING to a recent communication from Trade Commissioner Brady, the Argentine Minister of Agriculture has announced through the press that the Government acquisition and sale of grain sacks to farmers during the past summer is considered as having been successful. While the Government agents found that the merchants were underselling the Government price by a margin of 2 centavos per sack, and the farmers preferred to buy from the latter, yet the experiment doubtless had the desired effect of keeping down the price and preventing speculation. During the past year the majority of grain sacks were imported, and various proposals for the local manufacture of a larger number of sacks have been discussed. Already the Province of Jujuy has granted a concession for the manufacture of sacks from the plant fibers of that region, the concession providing that the factory must begin operation within one year and have an annual production of 1,000,000 sacks by the third year of operation.

NEWS LETTERS

DULUTH

S. J. SCHULTE - CORRESPONDENT

ELEVATOR interests and commission houses are getting ready to handle a heavy trade on this market during the present crop year. While the wheat crop over the Northwest is admitted to be spotted in some districts, reports being received by operators here are to the effect that the yield should be up to the average. The state inspection department here is at present employing a force of 55 men, but it is understood that about 12 additional men will be taken on next month. The force engaged in the weighing department under the supervision of F. M. Schutte will also be increased. By co-operation of officials in every department it is hoped to handle all the cars on track the day they come in, thus reducing the item of demurrage charges to a minimum. All the elevators and commission houses propose to employ adequate forces to take care of every emergency, and to establish records for the prompt handling of grain sent this way.

Due to competition of interior mills for supplies, receipts of wheat at the elevators here amounted to only 21,460,108 bushels during the crop year ended July 31 last as compared with 90,679,743 bushels during the previous year. Rye made up the next largest item, its receipts coming to 17,714,164 bushels, against 17,336,163 bushels last year. Oats receipts were 1,035,304 bushels against 2,662,582 bushels; barley 2,385,331 bushels against 8,771,352 bushels and flaxseed 2,840,700 bushels against 4,824,036 bushels. Receipts of all grains came to 45,445,776 bushels against 124,300,268 bushels last year, thus showing a falling off for the year of 78,854,492 bushels.

Grain men on this market were deeply interested in an intimation from Baltimore, Md., that Julius H. Barnes who has just been released from his duties as head of the United States Grain Corporation, has formed a trade partnership at Baltimore, Md., under the title of Barnes, Jackson & Co. Mr. Jackson, was formerly vice-president of the Grain Corporation for the Baltimore zone, and it is understood that the new firm will specialize in the export trade in which Mr. Barnes had for many years prior to the outbreak of the war been recognized as a leader. It had been often remarked by his associates in the trade on the Duluth market that Mr. Barnes appeared to be able to arrive at prompt and unerring decisions regarding the advisability of accepting export offers from various countries. He was always in close touch with ocean freight rates from the different markets in this country so that he was in position to cable immediate replies, while trade competitors were often compelled to delay in order to obtain information. It has been announced that Mr. Barnes will retain his connections on the Duluth market, but a reorganization is being effected in his firm here, the Barnes-Ames Company. A statement regarding it will be forthcoming shortly. In addition to his grain interests in Duluth, Mr. Barnes is the controlling figure in the McDougall-Duluth Company, operating a shipyard, which has been busy on Government and foreign contracts since the spring of 1917. He is also estimated to have a \$1,000,000 investment in the Klearflax Linen Rug Co., which affords a profitable market for flax straw after the seed had been threshed out, and which had before been a waste product for growers in Minnesota and North Dakota. Mr. Barnes became interested in the proposition in the first place as an experiment, it having been shown him that the short straw left could be manufactured into yarn by the use of specially designed machinery. The scope of the factory has expanded so prodigiously that its fiber rugs are now sold through agencies extending from New Orleans to New York. What Mr. Barnes did in the grain trade in the emergencies created during the war is now a matter of history. He was a subscriber for one issue Liberty Bonds to the extent of \$1,000,000.

The outlook for wheat and other crops over Iowa, Wisconsin and Minnesota is the brightest he has ever seen it, in the opinion of R. M. White of the White Grain Company, who has returned from a three weeks' auto trip over the territory. After a close field survey he has concluded that the outturns of wheat, oats and rye will be much above the average. The hay yield in Wisconsin and Minnesota was not quite up to the bumper mark of a year ago, but he estimates that it also was well above the average.

Mr. White expressed the hope that lower prices would be made in all grains during the new crop year. As he sees it, deflation in the costs of living would follow the making of lower prices in grains. Farmers and elevator and grain men would benefit in the end, he considers, through the cutting out of war prices and the bringing of the business back to normal conditions. He especially decried the speculation that has developed in farm lands in Illinois and the Middle West States under the influence of high prices in food products.

Among the recent business changes reported on the Duluth market was the retirement of the Woodworth-Newhouse Company, its business being taken over by the Hoover Grain Company. The American Linseed Company is closing out its Duluth branch. It is understood that Percy Fuller, who has been in charge of the company's business here since the promotion of E. H. Smith to headquarters at New York, will be transferred to its Winnipeg branch.

From \$2.70 down to \$2.12 in the December wheat future and to \$2.05 in the December durum future was the record set here in the course of the first month's trading since the re-opening of the wheat markets on July 15. In the absence of a heavy movement of grain to the markets, trade from day to day was comparatively light, but at the same time heavy drops were recorded on some days. With the establishing of winter wheat grades here the December future in it was quoted on a parity with the Spring wheat figure, but a premium of 5 cents is now being paid for Spring. Grain men are disposed to look for the setting in of lower levels for wheat as soon as hedging pressure develops after the movement of the new crop sets in actively.

Trading in rye was active during the last month, and wide fluctuations were set with the range extending from \$2.18½ down to \$1.74¾ for the spot article. Putting through of export trade led to rallies on occasions, but the gains brought about fresh selling and declines after that support was withdrawn. Stocks of rye in the elevators here have been cut down to less than 200,000 bushels as a result of the shipping out of stocks sold for export.

The following Duluth Board of Trade memberships were transferred recently: M. L. Jenks to Edward L. Glaser of the Rosenbaum Grain Company, Chicago; Sterling H. Howe to O. T. Newhouse; W. J. McCabe to A. Reed Ruby, and J. W. Wood to Edward S. Jennings of New York.

William L. Grettum, Duluth grain man found the wheat crop to be spotty over wide areas of North Dakota, in the course of a recent inspection trip. He noted that while one wheat field might grade No. 1 Northern, the adjoining one might be badly rust infected and withered. The hot spell after the first of the month was a blessing in disguise, he thinks, in forcing the ripening of much wheat ahead of the rust.

With outstanding loose ends wound up the United States Grain Corporation closed its Duluth office at the beginning of the month. The Corporation began business here on September 4, 1917, with Percy H. Ginder, vice-president in charge.

E. W. Berreau of William Dalrymple's office has been elected a member of the Duluth Board of Trade. He purchased the membership of O. T. Newhouse.

Charges for the sampling of grain and flaxseed have been advanced to 75 cents a car on the Duluth market. It was explained that the advance was made necessary through higher operating costs.

A sample of "Ruby" wheat grown near Crookston, Minn., was shown on the Duluth market recently and it attracted considerable attention among grain men. The new grain was developed by Prof. J. A. Saunders at the Ottawa (Canada) Experimental Station. It is claimed for "Ruby" that it matures two weeks earlier than any other variety of grain in the Red River Valley district, experimentation having demonstrated that it was ready to cut 88 days from the time it was seeded. It will therefore have matured prior to the time that black rust usually makes its appearance. The kernels of the samples shown were plump and they appeared to be of good milling quality.

Grades for winter wheat have been set on the Duluth market and the expectations of commission men are that a substantial tonnage of that grain will be handled here during the present crop year, as a result of this market having been placed on the map for that business through the new spreads in freight rates announced last winter by the Interstate Com-

merce Commission. Operators here hold mixed views as regards the working out of the recently announced advance of 35 per cent in freight rates. As commission men figured it out, the advance will intensify the advantage this market enjoyed under the old rates at some points while the benefit will correspondingly inure to Chicago at points where rates were previously in favor of that market. The recently adopted winter wheat grades for the Duluth market closely followed the Chicago grades. The following grades were made deliverable at the contract price: No. 1 Dark Hard Winter, No. 2 Dark Hard Winter, No. 1 Hard Winter, No. 2 Hard Winter, No. 1 Yellow Hard Winter, No. 2 Yellow Hard Winter, No. 1 Red Winter and No. 2 Red Winter.

The following grades are deliverable at 5 cents under the contract price: No. 3 Dark Hard Winter, No. 3 Hard Winter, No. 3 Yellow Hard Winter, No. 3 Red Winter, No. 1 Hard White and No. 2 Hard White.

On contracts for future delivery of winter wheat the following grades of spring wheat are now deliverable at the contract price: No. 1 Northern, No. 2 Northern, No. 1 Red Spring and No. 2 Red Spring. The following grades are deliverable at 8 cents under the contract price: No. 3 Dark Northern, No. 3 Northern and No. 3 Red Spring.

INDIANAPOLIS

EARL BULLOCK - CORRESPONDENT

THAT the car situation with respect to the grain movement is holding its own in Indiana, and in some parts of the state shows signs of an improvement, is the opinion of Charles B. Riley, secretary of the Indiana Grain Dealers Association and also secretary of the Indiana Millers Association. During July, when the first wheat began to move, considerable trouble was experienced in securing cars and constant petitions and messages were sent to the Indiana Public Service Commission asking them to take the matter up with the Interstate Commerce Commission. John W. McCordle, vice-chairman of the state commission, now is in Washington at a conference with railroad officials and members of the national commission seeking to further remedy the situation in Indiana.

According to grain elevator men and millers, farmers are for the most part disposing of their wheat as quickly as it is threshed, mainly because few have storage facilities. The result of this selling of grain has been to ease off the credit condition of the state. Two of the most prominent bankers in Indianapolis said recently that the rapidity with which the grain has moved to the terminal markets causing a return flow of money has worked wonders for finances. The same bankers declare it will be some time before there is a lower rate of interest, but practically every bank in the state now is willing to loan money to legitimate industries and businesses.

Plans are being made for the annual outing for the members of the grain and milling trade to be held at Lake Maxinkuckee, September 4, 5 and 6. Before the war such outings were held annually and came to be events looked forward to with keen interest by the men in the trade. This will be the first since the United States declared war on Germany. Officials of the organizations believe if anyone has earned a vacation this year, it is the grain dealers and millers. Headquarters will be at the Palmer House, Culver, Ind.

The Farmers' Elevator Company's large elevator at Newman, Ill., near the Indiana-Illinois state line burned August 6 with a loss of approximately \$100,000. The origin of the fire is not known. It started in the elevator and quickly spread to a lumber yard and to a railroad station, taking all in its path. The elevator was full of new wheat.

Building permits for the construction of four buildings or additions to buildings with a total cost of \$83,000 have been issued to the American Hominy Company, at Indianapolis by the city building inspector. The buildings are made necessary in order to increase the production of the plant and take care of heavy orders recently received.

All the construction will be of reinforced concrete and every effort will be made to make the buildings fireproof. An addition will be constructed to the present filter building. Its cost is estimated at \$12,000. A four-story addition will be made to the dryer building at a cost of \$18,000 and a four-story addition will be made to the boiler and power house at a cost of \$45,000. In addition the company plans a one-story water softening plant that will cost \$8,000.

Suit has been brought in the Howard County Circuit Court by the Windfall Grain Company, Ind., against Walter Ross, receiver of the Toledo, St. Louis & Western Railroad Company, Elmer Newhouse, Frank O. Lord and Stephen Martin asking \$2,000 damages for loss to a car of corn. The complaint

sets out that after the corn had been consigned for delivery at Sims, Ind., for stock feeding purposes the railroad company in some manner turned the car over to the other three defendants. The plaintiff says the corn was perishable since it was to be fed to stock and was not intended for storage purposes.

Indications that the Indiana Grain Dealers Association is growing rapidly may be seen by the number of applications for membership. During the first week in August applications were received from 11 firms. Those elected were as follows: Dunreith Elevator, Dunreith, Ind.; Wilkinson & Evans, Remington; Monroe Grain Company, Monroe; The Caca Elevator Company, Noblesville; Clifford Co-Operative Company, Clifford; Pine Village Grain Company, Pine Village; Harlan Grain Company, Kentland; Farmers Co-Operative Company, Mt. Ayr; Farmers Co-Operative Company, Yorktown; Clayton Milling Company, Clayton, and W. C. Smock & Co., Burrows, Ind.

The grain elevator at Finney, Ind., less than 12 miles west of Attica, Ind., was destroyed by fire August 5. The plant was owned by the Davis Bros. of Judyville, Ind., and the loss is approximated at \$20,000, partially covered by insurance. In addition to the building, a large quantity of corn was destroyed. The elevator was erected several years ago by Sam Finney, of Indianapolis.

KANSAS CITY

B. S. BROWN - CORRESPONDENT

THE car situation in the Southwest has shown a little improvement the past few weeks, according to W. R. Scott, the Board of Trade transportation commissioner, but shippers have been unable to get as many cars as needed and the movement of new wheat has been far smaller than it would have been if the supply of cars had been adequate. Country points continue to complain of the car shortage, terminals have an insufficient supply and there is already a good deal of congestion of new wheat at the smaller country markets.

The movement of new wheat to Kansas City in particular has been a great disappointment. From the size of the crop in Kansas, Missouri and Oklahoma it was expected that arrivals would be big, at least nearly as large as in other years of big harvests. Instead the movement has shown only a moderate increase over the average of the last few months of last season and has been only one-third to one-half as large as a year and two years ago. Elevator stocks were still decreasing the first week in August, though ordinarily at this time of the summer the seasonal increase is well under way. The small receipts have been the main factor in several strong bulges in the market, though the general trend of prices has been lower for several weeks. Arrivals generally have been adequate for daily requirements. The daily average has been around 225 cars, compared with 450 cars a year and two years ago. It is generally thought that the movement has reached the maximum possible under the present conditions.

The credit situation has become closely allied with the car situation and continues acute on account of the difficulty of moving grain and of liquidating contracts. Country elevators in particular are feeling the effects of a stringent money market.

Many of the cars circulating in the Southwest are considered unfit for loading grain, which adds greatly to the troubles of shippers. W. R. Scott in a recent report said that the inability of railroads to add to and repair their rolling stock had affected the grain industry more than any other one line of business.

Wheat loaded on cars at country points near Kansas City recently commanded premiums of 10 to 14 cents a bushel.

D. F. Piazzek, former second vice-president of the Grain Corporation and agent at Kansas City, kept his office open until August 15 to settle numerous small claims and other routine business. He is planning to take an extended vacation on his farm near Kansas City.

Trade in wheat futures has increased slowly since the market was reopened July 15. The first few sessions transactions were limited to a few thousand bushels and since then the total has increased to around 250,000 bushels. Under normal conditions before the war the total often ran into the millions. There were signs of increasing activity the first week in August and it was thought trade would soon be large enough to reflect accurately supply and demand conditions. As at other markets, trade at the start was entirely a speculative affair. Hedging orders appeared in substantial volume soon and at present represent a fair proportion of the business. A few mills have also been active in the future market at

Kansas City. Predictions of wide swing in prices, with the car situation and export demand important factors in sentiment, have been easily fulfilled. In a little over two weeks the December delivery at Kansas City dropped from \$2.70 to \$2.05½ and March declined from \$2.72½ to \$2.07½. In the same time carlots dropped almost as much. Other grains were affected by the weakness in wheat, though corn responded chiefly to favorable crop and weather advices. Wheat has resumed its leadership in the future trade at Kansas City. Trade in corn and oats has diminished appreciably.

The five grain companies in Kansas City which have elevators in the state of Kansas returned their property for a personal property valuation of \$529,494 for the year 1920. The County Assessor increased this to a total of \$2,076,541. The County Commissioners sustained him and the elevator companies appealed. The State Tax Commissioner recently sustained in part the County Assessor and partly sustained the appeal by fixing the total at \$1,108,587 for the elevators. By the decision the County Clerk is instructed to place the elevators on the tax rolls at these figures: Frisco, \$69,533; Armour, \$507,818; Terminal, \$340,160; "Little Rock Island," \$8,680; Simonds-Shields-Lonsdale, \$182,796. Other increases granted by the Tax Commission, however, will bring the total increase sustained in the county assessment to \$673,420 and will mean an increase in taxes at the rate of this year's assessment of \$14,500.

Ben U. Feuquay, formerly with the White Grain Company of Enid, Okla., and now with the Bruce Bros. Grain Company, has been elected a member of the Kansas City Board of Trade on transfer from George Stevenson of the Stevenson Grain Company. F. R. Warrick of the Thresher-Fuller Grain Company has been elected a member on transfer from I. H. Rich. Both transactions were at \$14,500, including a transfer fee of \$500.

The sectional increases in railroad freight rates granted recently will disturb the present schedule of prices between Kansas City and outside terminals, but the differences will be adjusted as soon as possible, according to W. R. Scott, Board of Trade Transportation Commissioner. Grain men generally were pleased at the advance in charges, feeling that only with increased revenue will the roads be able to replace worn out cars and engines and thus bring the service up to the demands of shippers. The belief was expressed that a big improvement in service would follow the advance, but most shippers think no important change will be apparent at the start as railroads have been exerting themselves to the utmost for months. The new rates from Kansas City to most New England points represent an advance of 8½ to 9½ cents a bushel for wheat, 7 to 8½ cents for corn and 4 to 5 cents for oats.

A car of Kanred wheat, the variety developed at the Kansas State Agricultural School, was received recently by the Kemper Grain Company. Quality and appearance were excellent and the grain easily came up to the high standard claimed for it. It graded No. 2 Dark Hard, tested 59.5 and sold to a mill for \$2.87, the top price of the day. The car was shipped from Milford, Kans.

Wheat receipts at Kansas City in July were 25 per cent smaller than the July average for the past 10 years and were only about half as large as the arrivals a year and two years ago. The movement in all the Southwest was greatly restricted by a shortage of cars and the total would have been substantially larger if railroads could have met the demands of shippers. Receipts for the month amounted to 5,015 cars, compared with 3,282 cars in June, 10,253 cars a year ago and an average of 6,702 cars. Corn and oats receipts were small.

The last report of the Kansas State Board of Agriculture in which the wheat yield was raised to 147,000,000 bushels, as compared with earlier estimates of around 110,000,000 bushels, was not a surprise to Kansas City grain men in touch with Kansas grain shippers and dealers. It had been freely predicted for some time that the Government and state figures were far too conservative. The same has been true of practically all the Southwest. An increase of about 5,000,000 bushels in the Oklahoma crop, making the total around 40,000,000 bushels, was indicated recently.

Country elevators in this territory generally have found trading in the 1920 wheat crop a difficult undertaking. The market has been highly erratic and hedging facilities have not been available. Wheat generally has been offered freely by farmers, but the car shortage and restricted credit have prevented country elevators from accepting more than limited quantities. Early in the season it was thought country elevators would operate on a very wide margin, probably 50 to 60 cents, but this has been found not to be the case, probably because farmers were not inclined to sell at such a discount under the price at terminals. According to reports received at Kansas City the margin in Kansas, Missouri and Oklahoma

generally is around 30 to 40 cents, though there is some irregularity in the prices being paid in the country. When carlots of wheat were at their low level the last of July, a number of points in Kansas reported that farmers were receiving \$1.80 to \$1.90, though in most cases the country price was as high as \$2. Many elevators are full and have been forced to refuse wheat when offered. The car situation is reported as acute as ever and the difficulty of securing credit is rapidly becoming a big factor. Many country elevators have put their business on a "quick turn" basis, that is, they buy wheat from farmers only when they have a car ready to load, thereby avoiding the necessity of securing extensive credit at a bank.

The grain trade at Kansas City has felt the effects of congestion at Galveston for many months and prospects of permanent relief seem as remote as ever. On August 2 six of the principal roads placed embargoes against all grain shipments to Galveston until further notice. Several thousand cars of grain, chiefly wheat, are on track there awaiting boats. Export trade at Kansas City has been restricted by the shipping difficulties. A number of local firms have also felt a severe credit strain as a result of inability to move grain now at Galveston.

CINCINNATI

CLYDE LEVI - CORRESPONDENT

THE market for hay in Cincinnati evidences a good demand with a fair increase in shipping orders, while receipts and terminal cars are stronger and underlying conditions indicate an upward trend of local values. In the first days of this month there was much interference by rain during the trading hours which resulted in only a partial plugging of cars and not enough sales to accurately report prices or the condition of the market and quotations for both old and new hay remained nominally undisturbed.

Extreme scarcity and many inquiries influence the local corn market to a stronger and higher basis, the option influence tending lower on good rains in the corn belt. Yellow is much in demand and command a premium over white, the first time in many months. The oats market continues dull and further concessions are necessary to move only a part of the liberal receipts. The market on wheat here is firm but trading somewhat slower.

E. C. Arnold has filed application for associate membership in the Cincinnati Grain and Hay Exchange to represent the Louisville and Nashville Railroad.

Traffic Manager Sam Reeves of the Cincinnati Grain & Hay Exchange obtained from traffic officials of the Baltimore & Ohio, an interpretation of the embargo order against Cincinnati by which the embargo does not apply to cars of hay shipped to Cincinnati from points on the B. & O. The cars of hay are sent to the plugging track, which is part of the Pennsylvania system. The interpretation was given that such consignment did not constitute delivery on B. & O. tracks against which the embargo was placed. Under the interpretation shipments of hay will be forwarded to Cincinnati by the B. & O. as usual.

Members of the Cincinnati Grain & Hay Exchange have announced that they will appeal to the Interstate Commerce Commission unless the railroads expedite moving of grain at the Cincinnati terminals. The inability of the railroads to place promptly receipts of wheat and other grains frequently causes loss to both the shippers of the grain and the commission merchant, the members aver. This also reflects upon the grain market here and it is detrimental to Cincinnati as a hay and grain center, they add.

On July 30, wheat prices in Cincinnati took the biggest tumble since the end of the world war. Thirty cars of the new crop were received by the members of the Cincinnati Grain & Hay Exchange and offered for sale at the noon session. "Grain, grain, everywhere, but buyers nowhere," was the oft-heard remark of members of the exchange. It was fully an hour after the session had opened before a car of wheat changed hands.

The wheat crop for Ohio this year will be 20 to 25 per cent lower in yield than last year, but other crops are very promising, reports from various farmer organizations and the State Board of Agriculture indicate. Wheat harvest is advanced and threshing already is under way.

Review of more than half of the agricultural counties of Ohio shows that the damage which has been done by the Hessian fly this year is pronounced. In some of the counties inspected more than 80 per cent of the wheat stalks were found infested by the fly.

The Ohio Experimental Station frankly admits that its calculations as to prospective damage were not entirely correct. For the southern part of the state the dates after which wheat was to be sown were proved true, but weather conditions upset the dates of the northern part of the state. The dates this year which will be issued, have been set back slightly. They are September 20 in northern Ohio, varying from this until October 5.

It is estimated that farmers of Ohio used 5,000 ears in July and an equal amount in August for their wheat crop.

Samuel S. Reeves, traffic manager of the Cincinnati Grain & Hay Exchange attended the annual meeting of the National Industrial Traffic League in Philadelphia.

MILWAUKEE

C. O. SKINROOD - CORRESPONDENT

MILWAUKEE is now the third largest primary oat market considering the crop figures on receipts up to the present date. Last year, at this season, Milwaukee stood second as an important center for the receipts of oats. This year it has been displaced by St. Louis by a small margin, thus falling temporarily to the third market in size for receipts.

The present crop season to date shows oats marketing of about 77,000,000 bushels at Chicago, 30,000,000 bushels at St. Louis and over 26,000,000 bushels at Milwaukee. Milwaukee's next competitor in the oats field is far down the line—Minneapolis with about 16,000,000 bushels. Last year, Minneapolis ranked third in oats receipts and St. Louis was fourth. This report therefore indicates that temporarily St. Louis has taken rank as the second largest primary market for the receipt of oats. Milwaukee grain men declare that this grain center will easily climb back to second position in the oats trade, next to Chicago.

There is considerable comment here as to the rust damage to wheat in the Northwest. This, Milwaukee grain men say, will be rather slight, from the tone of the reports now coming from the Northwest grain belt.

Corn needs warm weather, is the general comment, but temperatures have been higher in some instances, hence it is believed that in the end the corn yield will be found very good.

New grains coming in from Wisconsin, like barley, and rye, have been found to be of excellent quality, thus forecasting that the new crop yields will be composed of grain which is high in weight, of good color and of sound quality.

Milwaukee now ranks fifth among the primary markets for its receipts of corn as compared with seventh for the same season last year. For the present crop season, Milwaukee has actually received just a trifle less than 12,000,000 bushels, or almost three times as much as a year ago when the receipts of corn totalled a little more than 4,000,000 bushels. The popularity of Milwaukee as an excellent corn market has also been shown lately in the fact that recently when grain trade went down to the minimum, the receipts of corn still came strong, far more than other grains. At the present time Chicago, St. Louis, Omaha, Peoria are ahead of Milwaukee in corn receipts. Milwaukee now ranks ahead of Kansas City and Minneapolis, something which it did not do last year. The location of large corn mills and other consuming industries here, is bringing a large amount of corn to the Milwaukee market.

Several Milwaukee grain men declare that an extraordinary tide of grain will come to this market in the new season because of the growing popularity of this center. The local market has more receivers and shippers of grain than ever before. Grain is also handled promptly, there having been very few interruptions to the movement.

The August rate of interest on advances has been fixed by the Finance Committee of the Chamber of Commerce at 8 per cent, in line with the high rates of interest now generally prevailing.

No great public project in recent years is of such keen interest to Milwaukee grain men as that of the deep water route to the Atlantic Ocean from the Great Lakes. The Milwaukee Chamber of Commerce named three representatives to attend the tide water route meeting at Detroit, thus recognizing the importance of the project, according to Secretary Harry A. Plumb. The representatives of the Milwaukee Chamber were James T. Mallon, Walter J. Fitzgerald and George D. Weschler. A local committee has also been organized to boost for the deep sea route of which Harry M. Stratton, president of the Milwaukee

Chamber of Commerce, is a prominent member. This body is composed of the heads of all the leading business organizations and civic clubs of Milwaukee. Meetings will be held from time to time to arouse interest in the project.

Phil Grau, business manager of the Association of Commerce of Milwaukee, also declares that in a short time the new tidewater route will be a reality and that all sorts of commodities will be shipped via the St. Lawrence route not only to foreign countries, but to New England and the entire east coast of the United States.

That shipping problems are looming large among the people was also shown when a group of Norfolk, Va. boosters came here to ask Milwaukee grain men and other shippers to use that route from the Atlantic Seaboard. Extensive harbor improvements were made at Norfolk during the war and now the business men of Norfolk are out to get a share of the traffic of Milwaukee and other cities. Later in the year, other delegates will come from Norfolk to see what fruit the propaganda has borne in the way of added shipments.

The Milwaukee Western Fuel Company has bought a large coal barge, the *J. D. Dimmick*, which will be rechristened the *Edward U. Demmer* after the vice-president and treasurer of the company. The *Dimmick* is a steel steamer with a keel measurement of 443 feet and a beam of 51 feet. The ship will carry 7,500 tons. The vessel will be used to bring coal from Erie ports to Milwaukee and grain and ore will be carried back to the East. This gives Milwaukee grain men an added vessel to carry their heavy shipments to the East.

The plan of the United States Shipping Board to turn over 35 steamers to the Government to haul grain on the Great Lakes will not have much if any effect on trade here, according to Harry M. Stratton, president of the Milwaukee Chamber of Commerce.

"The movement of grain on the lakes will not be what it should as long rates are held at the present level," said Mr. Stratton. "The present differential in favor of the lakes is so low as barely to cover insurance and freight and although plenty of tonnage is available, not enough grain is moving by lake to materially relieve the railroad congestion. It is true that with the added freight rates on grain which will go into effect soon, there will be a greater saving in shipping by lake and this may materially increase shipments by that route. One other factor which has worked against lake shipments of grain has been the labor troubles at Lake Erie ports.

"There is a great shortage of package freighters or the lakes, most of them having been transferred for that trade. They are only suited for bulk freight and yet for coal, ore, or grain, they would be very difficult to unload because in their after hold they have a tunnel shaft which would make it hard to get out the full cargo. These boats would carry from 100,000 to 110,000 bushels of grain and it may be possible to use them in a pinch later in the season to carry grain to Buffalo, or other Lake Erie ports. However, there is plenty of tonnage better fitted for the trade which is available at the present time."

Indicative of the growing traffic in Milwaukee is the opening of the Canadian National Railways office here with a general agent in charge. H. W. Ploss has been named to run the new office which is located in the Mitchell Building, just adjacent to the Chamber of Commerce Building.

New officers have been chosen by Henry Rang & Co. to succeed Henry Rang, prominent grain dealer, who died recently. E. M. Larson was chosen president of the firm. Hugo Stolley, who will be in full charge of the Milwaukee office, was elected vice-president. V. H. Rang was chosen secretary and J. J. Corbett is the treasurer.

The new feed mill of the Parry Products Company is making rapid progress in construction and it is believed that barring unforeseen obstacles, the mill will be in operation early in October. The new plant is at Thirty-sixth and National Avenue and is on the belt line of the Chicago, Milwaukee and St. Paul road and the Chicago and Northwestern lines. T. W. Parry, who is secretary-treasurer and general manager, has been in the local grain trade for many years and has been a member of the Milwaukee Chamber of Commerce since 1906.

An alarming situation in the way of a large number of cars out of order in the grain trade is shown in the report to the Milwaukee Chamber of Commerce, by M. H. Ladd, the chief weigher. Mr. Ladd gives a startling record of how many grain cars of those unloaded each month here have been found leaking. In January the record stood 28 per cent leaking, or 933 out of 3,227. In February, the same ratio was shown, 28 per cent, or about 700 cars out of 2,400 in round numbers. In March there was a better showing with 23 per cent leaking, or about 800 out of 3,300 approximately. In April the condition again became worse, with 26 per cent leaking, or 500 out of 1,900

cars being in a bad state of repairs. In May again, the condition of cars became suddenly worse, with 31 per cent of cars leaking, or about 800 out of 2,400 being in bad state. June was the worst month of all, with no less than 37 per cent of cars showing leakage, or 1,100 out of 2,900 in round numbers.

Grain dealers are warned by the Chamber of Commerce to take notice of this deplorable condition of affairs and use every effort to see that cars do not leak as claims against railroads are very slow in adjudication and collection at best is doubtful, to say nothing of the waste that can be avoided if cars are carefully looked over before they are loaded with grain.

An old time member of the Milwaukee Chamber of Commerce, W. G. Collins, is dead. He had joined the Chamber way back in 1879 and was one of the old pioneers in membership. For a time Mr. Collins was general superintendent of the Milwaukee road, living in Milwaukee, but retired many years ago and moved to Seattle, Washington.

Clarence G. Brunner has been appointed traveling grain representative for the W. M. Bell Company in Minnesota and South Dakota, to succeed E. A. Armstrong, who has been named manager of the Sioux Falls office of the Bell concern. Mr. Brunner has had nine years of experience in the grain business. He served in the United States artillery during the war.

One of the signs that Milwaukee is rapidly growing as a shipping center is the decision of the American Ship Building Company, of which the Milwaukee Dry Dock Company is a part, to build a dry dock here to cost \$1,250,000. The new dock will be built at the foot of Washington Street on land owned by the Milwaukee Dry Dock Company. A large general office, a new pump house and all the paraphernalia which go with a first class dry dock will be provided.

The new dock is of especial importance to the grain trade and to shipping men generally because the present dry dock facilities of the city will not take care of boats more than 450 feet long, nor of more than 7,500 tons capacity. For these larger repairs, the big boats had to be taken to other cities. Last winter many big ships wintered in Milwaukee and on many of these, repairs were needed. Because of the lack of the big dry dock, the vessels had to be held here until the opening of navigation and then they found the repair ship yards badly congested, all of which meant a signal waste of time. This will be obviated when the new million dollar dock is completed.

The official record of grain receipts at Milwaukee for the first week of August shows the trade has been suffering from small offerings. Receipts were only 40 cars of barley, 144 cars of corn, 179 cars of oats, 43 cars of wheat, 35 cars of rye, and 3 cars of flax, making an aggregate of 444 cars against 381 cars in the previous week, 630 cars a year ago and 861 cars two years ago. These figures indicate that there is a little growth in the grain movement over the previous week, but the receipts are from 50 to 100 per cent less than they were one and two years ago for the corresponding period.

Grain markets in Milwaukee are decisively on the mend for the first week in August, due largely to talk of war between the allies and Russia. Barley rose 8 to 10 cents for the week, corn went up 12 to 13 cents, oats went up 5 to 8 cents, rye advanced from 19 to 25 cents and wheat from 10 to 25 cents.

Frank B. Bell, Harry Emerson, Edward La Budde and Herman Deutsch were among the prominent Milwaukee grain men who attended the recent meeting of the Southern Wisconsin and Northern Illinois Feed Dealers Association meeting which was held at Lake Geneva, Wis.

A new seed house has been started in Milwaukee called the North American Seed Company with the following officers: President, J. P. Kettenhofen; vice-president, Joseph Heisdorf; vice-president and secretary, M. J. Witteman; treasurer, H. W. Umbs. The company is doing business at 186 to 188 Reed Street. The company will have the best machinery for the cleaning and handling of seed grains. About 24,000 square feet of space will be available for the new firm and there will be storage room for about 3,500 bushels of bulk seeds. Clover, timothy, alfalfa and seed corn will be the specialties of the new company with the three following brands; First, or Quality brand; Second, or Marvel brand; and Third, or Service brand.

Another item of great importance to the shipping trade is the proposed merger of five of the leading ship companies on the lakes which will involve about \$10,000,000 if carried out. The Goodrich, the Northern Michigan interests, the Chicago, Racine and Milwaukee, the Wisconsin Transit Company, and the Milwaukee Terminal Company are all believed involved in the new shipping combine which will have a large part of the total traffic on Lake Michigan. Officers of some of these concerns have admitted that the giant merger is under way and is more than likely

to be completed. A million dollar terminal now being built in Milwaukee for one of the lines is likely to be the headquarters of all the merged companies in this city, it is believed.

NEW YORK

C. K. TRAFTON - CORRESPONDENT

AN ELEVENTH hour item of news has been released just in time to be included in the New York letter. The announcement that Julius H. Barnes, Wheat Director of the United States, would very shortly conclude his services in that connection and resume active business in the export and cash grain trade, in association with some of his colleagues in the United States Grain Corporation, was received with great interest by members of the New York Produce Exchange, and will doubtless prove interesting to all members of the grain trade throughout the country.

At the beginning of the war Mr. Barnes closed all his grain trade activities and the old firms of Barnes-Ames & Co. and the Zenith Grain Company of Winnipeg, which had been in business for many years, ceased all operations.

Since that time Mr. Barnes has devoted his entire time as president of the Food Administration Grain Corporation, from the passage of the Food Control Act until July 1, last year, and since that time as Wheat Director for the United States and president of the United States Grain Corporation.

The official announcement as given out at the direction of Mr. Barnes is as follows:

We desire to advise our friends and business acquaintances that after some years of suspension of private business activity in the grain trade, we shall re-enter the grain handling and grain export business under certain new relations.

At Duluth and New York, the Barnes-Ames Company will resume the export and shipping business as formerly.

At Winnipeg, the Zenith Grain Company, Ltd., will resume its grain shipping business.

At London, there has been established, commencing business October 1, 1920, Smyth, Barnes & Co., Ltd., capital £50,000, by joint interest of Ross T. Smyth & Co. of Great Britain, and Barnes-Ames Company, for the direct handling of European business.

At Philadelphia, commencing August 16, 1920, a new corporation of \$150,000 capital stock, Barnes-Irwin Company, Inc., will be established under the management of H. D. Irwin.

At Baltimore, commencing August 16, 1920, a new corporation of \$150,000 capital stock, Barnes-Jackson Company, Inc., will be established under the management of George S. Jackson.

Each of these companies will conduct its own business under its own management and in accordance with its own field.

While some of the undersigned have interests in only one of the companies named, we subscribe our individual names to this announcement in the desire to secure that personal interest, based on personal acquaintanceship, and requesting from all our friends and associates, kindly consideration and friendly business relations.

Julius H. Barnes,
H. D. Irwin,
P. H. Ginder,
William Beatty,
Edward Paul,
Hamilton Clements,
Robert S. Harker.

Ward Ames, Jr.,
George S. Jackson,
Arthur P. Barnes,
H. T. Swart,
Hugh R. Rathbone,
William Paul,
Herbert T. Robson.

George E. Marcy, president of the Armour Grain Company, Chicago, spent a few days recently with his many friends in the grain trade on the New York Produce Exchange, of which he is a member. Mr. Marcy expressed the opinion that the bear operators who had been depressing the grain markets had not taken into account the increased freight rates. Moreover, they had been disregarding the farmer entirely, selling grain freely at big discounts, evidently not paying the least attention to the farmer's opinions as to values.

Carlos Falk, manager of the grain department of P. N. Gray & Co., Inc., export and import merchants, returned to his post on the New York Produce Exchange late in July after an extended absence. Most of this time he spent in traveling in the United Kingdom and on the Continent.

Henry C. Gibbs, an old-time member of the grain trade, formerly of New York and Winnipeg, who recently retired from active business, has sold his membership in the New York Produce Exchange.

The following members of the grain trade who recently resigned their associate memberships in the New York Produce Exchange, have been elected to regular membership: Edwin S. Rosenbaum, of the J. Rosenbaum Grain Company, Chicago; Ernest Reinert, manager of the Chesapeake Export Company, Inc.; James S. O'Donohoe of the Grain Growers Export Company, Inc.; George J. Lulie of the Grain Growers Export Company, Inc., and Charles F. Watt of Sanday & Co., grain merchants.

The Board of Managers of the Produce Exchange have elected the following to membership: Watson S. Moore of the W. S. Moore Grain Company, Duluth; John Brown of Parker & Graff, grain merchants; Ed-

ward Weismann, grain exporter, and Edwin V. Phillips of the Hall-Baker Grain Company of New York, Inc.

The following applications for membership have been posted on the bulletin boards of the Produce Exchange: Prentiss N. Gray, president of the P. N. Gray & Co., Inc., export and import merchants; Walter M. Lambert of Muir & Co., export and commission merchants, and Forrest W. Wallace of Mosher & Wallace, stocks and grain, New York.

Charles S. Band, who is associated with his father, C. W. Band, manager of the local office of James Caruthers & Co., Ltd., grain merchants of New York, Toronto and Winnipeg, has resigned his associate membership in the Produce Exchange and applied for admission to regular membership.

Robert Kjarsgaard, for several years connected with various grain importing and exporting houses on the New York Produce Exchange, has become associated with Robert Edelstein, manager of the newly incorporated Transatlantic Brokerage & Export Company.

The following well-known members of the grain trade on the Chicago Board of Trade were among the recent visitors on the New York Produce Exchange: Howard Jackson of Jackson Bros. & Co.; Alfred D. Martin of Bartlett Frazier Company and Fred S. Lewis of F. S. Lewis & Co.

ST. LOUIS

SPECIAL CORRESPONDENCE

ONE of the most important points of discussion on the floor of the St. Louis Merchants' Exchange at present is in regard to private wires among members. It is claimed that those who have private wires get an unfair share of the business, and that private wire ownership often has a decided tendency to create a monopoly. There is practically no criticism of the owners of private wires between the larger cities.

At a special election on July 22, W. J. Niergarth of the Marshall-Hall Grain Company, St. Louis, was elected by a vote of the members, to fill the vacancy on the Board of Directors of the St. Louis Merchants' Exchange, created by the resignation of W. E. Stewart.

Carl Langenberg, of the Langenberg Bros. Grain Company, who made an extensive trip through the Orient, has just returned to St. Louis, and is again an active figure on the floor of the St. Louis Merchants' Exchange. While in Japan, Mr. Langenberg, among other places, visited Yokohama, Tokyo, Shimonesek, Kioto and Kobe. He very much admired the skill of the Japanese in their irrigation work, and also in their ledge gardens. The rations of the Japanese army were recently changed to include a larger proportion of wheat than formerly, but he does not think they will require any imports, as the increase will, in all probability, be taken care of by the normal crops of Japan. In China he visited Peking, Shanghai, Tientsin and Nanki. The principal grains raised in China, he found, are rice and wheat, although most of the wheat is exported. However, he does not think the quantity is sufficiently large to be felt to any appreciable extent on the world market. On the return trip he stopped at Honolulu for one day. There is practically no grain grown in the Hawaiian Islands, as the land is almost entirely given over to pineapples and sugar cane. Mr. Langenberg enjoyed the trip very much.

E. C. Dreyer, of The Dreyer Commission Company, who has just left the city on a month's vacation, accompanied by his family, plans to drive from St. Louis to Wisconsin.

On account of primary elections, the St. Louis Merchants' Exchange was closed Tuesday, August 3.

C. E. Schumacker, flour broker of Augusta, Ga., was introduced on the floor of the Merchants' Exchange recently by Chas. E. Valier of the Valier & Spies Milling Company. Emil Wolff, of the Wolff Milling Company, New Haven, Mo., was introduced on the floor a few days ago by Mr. Schultz of the Schultz-Niemeyer Grain Company.

The Kellogg-Huff Commission Company has opened offices at 214-216 Rialto Building, St. Louis. This concern, which also has an office in St. Joseph, formerly operated as Newman & Malkemus.

The following were visitors in St. Louis recently: Percy B. Smith, of the Southern Illinois Milling & Elevator Company, of Murphysboro, Ill.; Geo. A. Wells, secretary of the Western Grain Dealers Association; H. T. Yancey, of the Yancey Grain & Elevator Company, of Berry, Mo.; C. E. Patterson, of The

Great Western Alfalfa Milling Company, Denver, Colo.; W. E. Harris, of Harris & Son, grain brokers, Baltimore, Md.; H. K. Schafer, of the Maney Grain Company, Omaha, Neb.; W. T. Whitney, of the Warwick Grain Company, Wichita, Kan.; and William A. Benson, sales manager of the M. D. King Milling Company, Pittsfield, Ill.

The following was posted on the bulletin board of the St. Louis Merchants' Exchange on July 31: "The following received this morning from Mr. Rippin, traffic commissioner at Washington: 'The Pennsylvania Railroad was ordered on July 24 to deliver 300 empty box cars to the C. P. & St. L. R. R. for grain loading at the rate of 10 per day.'"

The interest rate on purchases and consignments of grain seeds, etc., for the month of August has been fixed at 7 per cent by the St. Louis Merchants' Exchange.

Official notice has been received in St. Louis that advanced freight rates of 40 per cent in Eastern territory, 25 per cent in Southern territory, 35 per cent in Western territory and 33½ per cent in interterritorial rates (where the joint through rate runs from a point of origin in one territory to a destination point in another territory), will take effect August 26. A circular will be issued by Traffic Commissioner Charles Rippin soon as details are received.

The following were visitors on the floor the first week in August: Ben H. Gaebe, secretary of the John H. Gaebe Company, milling and grain, Addieville, Ill.; A. H. Owens of Pana, Ill.; E. K. Darragh, of the Darragh Company, hay and grain, Little Rock, Ark., and Jacques Luchsinger, member of the firm of Jochem & Luchsinger, millers' agents, of Amsterdam, Holland.

LOUISVILLE

A. W. WILLIAMS - CORRESPONDENT

THINGS have been a bit quiet during the past month with the elevator operators and grain men of Louisville, due to unsettled markets, and lateness of the 1920 crops, which are all about three to four weeks behind normal in movement. The elevators report that they have handled very little wheat this year, while oats are just getting started, and corn movement is dull. Rye has also been very light, as almost all the Kentucky crop has been plowed under, very little being ripened for the grain.

In view of the extremely high wheat market millers have not been buying wheat except for immediate use, with the result that the larger elevators have not been called upon for storage space as was the case last season, and in the past couple of seasons when there was heavy purchase and storage early in the season. With cash wheat starting off at \$2.77 and going to \$2.85 Louisville, and \$2.90 St. Louis, millers bought only for immediate needs, and then when the big slump came they checked their buying rapidly. When wheat dropped to \$2.40 a bushel some of the mills were not buying anything, preferring to clean up expensive wheat on hand before entering the market again.

Some of the leading wheat men were under the impression that wheat would drop as low as \$2 a bushel before the upward trend set in, and one wheat man contends that cash wheat is bound to drop still lower unless the shorts are well weeded out. The contention is freely made that December option should be selling at a price of at least 10 cents a bushel over cash, in view of insurance and storage, or carrying charges. Some wheat buyers figure that there is a lot of wheat sold short, and that this will result in a runaway market in December if car and coal shortage make it hard to get deliveries through. While it is impossible to figure much on the present market, it is generally believed that December will find a high cash market.

One prominent grain buyer stated that he would a whole lot rather sell December option on the present market than buy, explaining that in view of the figure on production, and known European demand, there was nothing in view but a high market late in the crop year.

Under such conditions it is easy to see why there is not much wheat being purchased and placed on storage in elevators, although a good deal of buying is in prospect in event wheat hits around \$2, when millers will probably begin buying up freely, and placing in storage for future use. Again fluctuations in wheat at \$2.50 a bushel and up, are bound to be far greater than in one dollar wheat, which is preventing free trading.

Prospects are generally believed to favor a higher wheat market later in the season. It is held that there is very little wheat in Kentucky this year, and that a considerable portion has been marketed. Wheat

THE AMERICAN ELEVATOR AND GRAIN TRADE

has been of unusually fine quality, reports showing that it weighs up from 60 to 65 pounds a bushel, grading largely to No. 1.

Corn prospects are reported as unusually good through the Ohio Valley district. Heavy rains on August 6 and 7, following fair weather, are claimed to have been worth many millions of dollars to the farmers, and with fair weather during the next few weeks a bumper crop is in prospect.

New oats have been moving along fairly well, and the quality is good, with No. 2 white selling at around \$1.66 in a cash way, in car lots. Very little new rye of home growth is on the market, but is quoted at around \$1.92.

The demand for feed has been fair as a whole, manufactured feeds being especially good, and mills having reported "over sold" on bran and mixed feed early in August. However, they are fairly well caught up now, and cash bran is quoted around \$47.50 a ton; with mixed feed and middlings at \$58 to \$60. Flour has been selling at \$13 a barrel for short patent, and \$12.20 for long.

While new hay is a little weedy it is well cured, and of good quality. The crop is reported to be a good one, although receipts are light and movement dull, as consumers are holding back stocking up as they are a bit afraid of new hay. Hay prices have tumbled considerably over the quotations on old hay, which were up around \$45 a ton. New hay cash quotations in car lots show No. 1 timothy at \$32; and No. 1 clover or mixed hay at \$29, with No. 2 grades at \$27. No. 2 timothy selling at the same price as No. 1 clover or mixed. Straw is scarce, due to a poor stand and short wheat crop. Paper mills have been bidding up the market, needing straw for strawboard, and as a result wheat straw is quoted at \$15 a ton, rye being at the price of \$16.

The Ballard & Ballard Company bought wheat at around \$2.75 to \$2.85 a bushel early in the season, but has been quoting \$2.40 for wagon wheat the past few days. The company ran a special conveyor equipment from the mill to the sidewalk this year to assist in handling wheat with less labor. Reports from various sections of the state indicate that today some of the country mills are buying wagon wheat at as low as \$2.25 a bushel.

The Kentucky Public Elevator Company reports a dull movement of grain through the plant at the present time, but prospects are for a much better movement in September, when conditions are expected to have become more settled.

Edinger & Co., of Louisville, report a fair movement of grain, feed, hay, etc., but buying is in small lots for immediate use, buyers being afraid of high markets. O. W. Edinger is back from a vacation spent in northern Indiana, and Albert Edinger will leave shortly for Minneapolis to spend a combined business and pleasure vacation.

Grain men of Louisville recently got into a wrangle with the county farm agents of the state, and the farmers over the statement that was made and printed in one of the newspapers to the effects that a grain man held that farmers were in a combine to force a price of \$3 a bushel for wheat. The miller later retracted the statement, stating that it was not authorized. Farmers were generally holding in the early part of the season, but there was no evidence of a combination.

Work is progressing nicely on the new elevator of the Kentucky Feed & Grain Company, at Fifteenth Street, and St. Louis Avenue, and the plant will be in operation in the early fall. Harvey D. Hays, of that company is on a six weeks motor trip through the East.

The Industrial Grain & Produce Company, New York, is reported to be planning to remodel the old Stagg distillery at Frankfort, Ky., as a commercial alcohol plant, the company having such a plant at Buffalo.

With the present heavy consumption of whisky for medicinal use, which is rapidly reducing available stocks of whisky in bond in Kentucky, prospects are for a lot of distilleries starting operations before long to make medicinal whisky, which will live up the grain market somewhat. It is claimed that as much whisky is being tax paid for medicinal use today as was tax paid for general use a few years ago, and that bottling plants are operating at capacity.

BENEFICIAL rains in Australia during the past six weeks have improved crop prospects in all districts materially. It is expected that Australia will have an exportable surplus this year.

IN THE battle area in France the wheat growing over the trenches that have been filled in stands so much higher and thicker than in other places that it forms a perfect map of the trench systems of the contending armies.

RECEIPTS AND SHIPMENTS

Following are the receipts and shipments of grain, etc., at the leading terminal markets in the United States for July:

DULUTH—Reported by Chas. F. MacDonald, secretary of the Board of Trade:

Receipts		Shipments	
1920	1919	1920	1919
Wheat, bus..	2,707,025	402,883	2,951,060
Oats, bus..	277,043	321,468	289,762
Barley, bus..	150,173	2,371,901	265,792
Rye, bus..	1,787,009	1,124,505	1,869,788
Flax Seed, bus..	792,051	321,744	535,491
Flour, bbls..	750,135	314,690	962,455
Flour, bbls., produced ..	90,315	49,050	

BALTIMORE—Reported by James B. Hessong, secretary of the Chamber of Commerce:

Receipts		Shipments	
1920	1919	1920	1919
Wheat, bus..	4,018,137		3,900,773
Corn, bus..	232,133		
Oats, bus..	91,825		
Rye, bus..	2,014,032		2,497,087
Hay, tons..	2,106		
Flour, bbls..	241,163		73,703

CHICAGO—Reported by John R. Manf, secretary of the Board of Trade:

Receipts		Shipments	
1920	1919	1920	1919
Wheat, bus..	2,562,000	9,375,000	2,632,000
Corn, bus..	9,067,000	4,887,000	2,995,000
Oats, bus..	7,299,000	11,012,000	4,323,000
Barley, bus..	867,000	2,810,000	398,000
Rye, bus..	369,000	467,000	389,000
Timothy Seed, lbs..	674,000	891,000	753,000
Clover Seed, lbs..	98,000	271,000	60,000
Other Grass Seed, lbs..	366,000	512,000	654,000
Flax Seed, bus..	71,000	91,000	1,000
Broom Corn, lbs..	21,000	684,000	532,000
Hay, tons..	12,615	15,913	2,007
Flour, bbls..	591,000	606,000	508,000

CINCINNATI—Reported by D. J. Schuh, executive secretary of the Cincinnati Grain and Hay Exchange:

Receipts		Shipments	
1920	1919	1920	1919
Wheat, bus..	503,400	1,754,000	309,600
Corn, bus..	558,000	213,600	460,800
Oats, bus..	224,000	346,000	76,000
Barley, bus..	3,900	26,000	
Rye, bus..	4,800	12,000	8,400
Feed, tons..	1,080	2,280	
Hay, tons..	6,556	6,633	
Ear Corn, bus..	10,400	6,400	

FORT WILLIAM, ONT.—Reported by E. A. Ursell, statistician of the Board of Grain Commissioners:

Receipts		Shipments	
1920	1919	1920	1919
Wheat, bus..	4,907,450	1,335,667	4,812,572
Corn, bus..		108,603	25,972
Oats, bus..	1,411,549	1,919,342	1,896,029
Barley, bus..	468,194	1,642,377	663,920
Rye, bus..	57,767	52,902	53,539
Flax Seed, bus..	357,180	197,731	116,488
Mixed Grain, lbs..	1,101,925	2,201,980	1,028,683

GALVESTON—Reported by H. A. Wickstrom, chief inspector of the Cotton Exchange and Board of Trade:

Receipts		Shipments	
1920	1919	1920	1919
Wheat, bus..			4,906,242
Barley, bus..			277,600
Rye, bus..			21,000

INDIANAPOLIS—Reported by William H. Howard, secretary of the Board of Trade:

Receipts		Shipments	
1920	1919	1920	1919
Wheat, bus..	867,100	2,850,000	41,600
Corn, bus..	1,905,400	1,052,500	753,200
Oats, bus..	1,000,000	626,500	264,000
Rye, bus..	21,000	45,000	5,600

KANSAS CITY—Reported by E. D. Bigelow, secretary of the Board of Trade:

Receipts		Shipments	
1920	1919	1920	1919
Wheat, bus..	6,770,250	13,841,550	4,498,200
Corn, bus..	793,750	795,000	453,750
Oats, bus..	544,000	719,100	136,500
Barley, bus..	160,500	33,000	42,900
Rye, bus..	69,300	58,300	27,500
Hay, tons..	36,468	37,656	15,456
Flour, bbls..	51,675	41,925	229,450

MILWAUKEE—Reported by H. A. Plumb, secretary of the Chamber of Commerce:

Receipts		Shipments	
1920	1919	1920	1919
Wheat, bus..	241,650	190,280	230,795
Corn, bus..	1,866,325	621,260	991,723
Oats, bus..	2,131,100	2,614,420	1,279,060
Barley, bus..	514,485	1,560,580	294,060
Rye, bus..	121,930	161,310	144,158
Timothy Seed, lbs..	120,000	31,365	30,000
Clover Seed, lbs..	590	73,647	211,100
Flax Seed, bus..	299,168	56,760	4,116
Feed, tons..	4,468	4,595	19,698
Hay, tons..	1,345	720	773
Flour, bbls..	78,745	61,765	79,210

MINNEAPOLIS—Reported by G. W. Maschke, statistician of the Chamber of Commerce:

Receipts		Shipments	
1920	1919	1920	1919
Wheat, bus..	7,005,176	4,143,400	3,430,840
Corn, bus..	461,360	523,680	517,880
Oats, bus..	948,350	2,329,190	1,356,910
Barley, bus..	694,560	3,977,340	1,000,210
Rye, bus..	448,000	958,930	1,724,580
Flax Seed, bus..	552,180	642,000	31,460
Hay, tons..	1,484	1,397	171
Flour, bbls..	86,910	64,025	1,446,493

NEW ORLEANS—Reported by G. S. Colby, chief grain inspector and weighmaster of the Board of Trade, Ltd.

Receipts		Shipments	
1920	1919	1920	1919
Wheat, bus..			5,277,656
Corn, bus..			28,020
Oats, bus..			25,400
Barley, bus..			415,334
Rye, bus..			25,000

NEW YORK CITY—Reported by H. Heinzer, statistician of the Produce Exchange:

Receipts		Shipments	
1920	1919	1920	1919
Wheat, bus..	5,211,600		2,211,000
Corn, bus..	2,088,810		69,000
Oats, bus..	2,776,160		1,823,000
Barley, bus..	419,900		85,000
Rye, bus..	2,763,294		2,452,000
Clover Seed, lbs..			353
Flax Seed, bus..	888,239		
Hay, tons..	18,119		32,853 bales
Flour, bbls..	700,795		486,000

OMAHA—Reported by F. P. Manchester, secretary of the Grain Exchange:

Receipts		Shipments	
1920	1919	1920	1919
Wheat, bus..	2,949,600	3,092,400	2,019,600
Corn, bus..	1,548,400	1,853,600	1,544,200
Oats, bus..	838,000	1,214,000	578,000
Barley, bus..	54,000	167,400	24,200
Rye, bus..	60,500	105,600	69,300

PHILADELPHIA—Reported by S. S. Daniels, statistician of the Commercial Exchange:

Receipts		Shipments	
1920	1919	1920	1919
Wheat, bus..	1,575,696	920,994	2,358,786
Corn, bus..	77,346	49,281	
Oats, bus..	169,888	1,345,512	1,457,880
Barley, bus..	3,740	247,174	
Rye, bus..	174,473	91,618	163,714
Flour, bbls..	286,765	269,180	544,735

PORTLAND, MAINE—Reported by Geo. F. Feeney, traffic manager of the Chamber of Commerce:

Receipts		Shipments	
1920	1919	1920	1919
Wheat, bus..		2,545	772,918
Oats, bus..			477,569
Barley, bus..		263,249	
Rye, bus..			75,310

ST. LOUIS—Reported by Eugene Smith, secretary of the Merchants Exchange:

Receipts		Shipments	
1920	1919	1920	1919
Wheat, bus..	4,270,970	8,277,964	2,115,990
Corn, bus..	2,299,120	1,078,978	1,527,530
Oats, bus..	2,264,000	2,464,000	1,534,750
Barley, bus..	60,882	92,800	14,110
Rye, bus..	34,487	55,544	3,950
Hay, tons..	16,314	13,382	3,860
Flour, bbls..	314,970	249,090	397,670

SAN FRANCISCO—Reported by Wm. B. Downes, of the Chamber of Commerce:

Receipts		Shipments	
1920	1919	1920	1919
Wheat, cts..	25,842		
Corn, cts..	15,460		
Oats, cts..	29,503		
Barley, cts..	110,848		
Hay, tons..	12,054		
Flour, bbls..	67,293		

TOLEDO—Reported by A. Gassaway, secretary of the Produce Exchange:

Receipts		Shipments	
1920	1919	1920	1919
Wheat, bus..	262,000	1,626,060	97,285
Corn, bus..	183,750	51,450	91,860
Oats, bus..	176,250	387,000	56,075
Barley, bus..	3,600	3,000	
Rye, bus..	22,800	52,200	61,162
Timothy Seed, bags			3,600
Clover Seed, bags	392		72
Alsike, bags	15	561	175

GRAIN TRADE PATENTS

Bearing Date of July 6, 1920

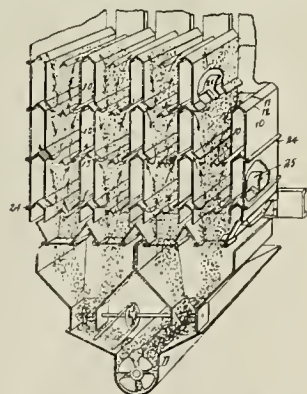
Elevator Belt Punch.—Joseph Arthur Packheiser, Picher, Okla. Filed August 19, 1919. No. 1,345,395.

Bearing Date of July 13, 1920

Grain Separator.—Hugo E. Behrens, Fargo, N. D. Filed February 14, 1919. No. 1,346,630.

Grain Drier.—Oliver W. Randolph, Toledo, Ohio. Filed February 3, 1919. No. 1,346,335. See cut.

Claim: In a grain drier, a series of air-ducts arranged in vertical and horizontal rows, the vertical rows being spaced apart to form therebetween grain columns, said ducts consisting respectively of elongated members having parallel side-walls which converge to form a top, and having at bottom downwardly flaring flanges, said flanges and the subjacent converging tops being spaced apart to form air passages between said ducts and said grain columns.



Feed Drum for Pneumatic Elevators.—George Bernert and Jacob Bernert, Milwaukee, Wis., assignors to Bernert Manufacturing Company, Milwaukee, Wis., a corporation of South Dakota. Filed December 5, 1914. No. 1,346,293.

THE average rice exports of the United States to all countries during the period 1910-1914 were less than 20,000,000 pounds a year. Today the exports range from 30,000,000 to 60,000,000 pounds a month.

ASSOCIATIONS

NORTHWEST GRAIN DEALERS MEET

The Northwest Grain Dealers Association met at Bozeman, Mont., on August 3 and 4. President W. T. Greely in his opening address was optimistic of grain conditions in Montana and of the future of the Association.

While the meeting was well attended and enthusiastic, new crops had commenced to come in and many who had planned to come stayed at home.

Jared Watkins of Great Falls was elected president; G. F. Beckwith of St. Ignatius, vice-president; H. N. Stockett of Great Falls, secretary-treasurer.

A committee will be named to draw up a plan for handling the crops this year in a manner suitable to Montana conditions.

MUTUAL FEED DEALERS MEET

The annual convention of the Mutual Millers & Feed Dealers Association was held at Jamestown, N. Y., July 29 and 30. About 175 members gathered to hear the address of welcome by Major Hyde of the Jamestown Chamber of Commerce.

Among the speakers was L. F. Brown, secretary of the American Feed Manufacturers Association, who told of the splendid work which was being done by that organization. The social features of the meeting were varied and most enjoyable.

The election of officers resulted as follows: James H. Gray, Springville, president; Roy B. Mulkie, Union City, Pa., vice-president; E. C. Kessler, Jamestown, secretary. Executive Committee, the above named officers and M. L. Waldorf, Olean; L. L. Warner, Niobe; H. R. Wilbur, Jamestown.

TO FORM NATIONAL BEAN ASSOCIATION

In response to the call for the formation of a National Bean Association, reservations have been made for a meeting at the LaSalle Hotel, Chicago, August 17 and 18.

E. E. Doty, president of the New York Bean Shippers Association, and also a large grower of beans, has kindly consented to act as chairman of the meeting.

The program as arranged at this date, provides for addresses on the following subjects: "Why a National Organization?"; "National Advertising of Beans"; "Bean Tariffs"; "The Miracle on Your Table."

In addition to the formal program, one session will be devoted to the general discussion of uniform trade rules, selling of futures, a bean exchange, and transportation problems.

A general invitation is extended to state bean growers and jobbers associations, wholesale grocers and canners associations and individual members of same, and brokers and others interested directly in marketing of the bean crop.

It is of vital importance that every section of the country should be represented at this meeting and participate in this organization, which it is believed will result in direct benefit to the bean industry as a whole.

INDIANA PLANS AN OUTING

Prior to the war, says Secretary Charles B. Riley of the Indiana Grain Dealers Association, the members of this Association and their friends were accustomed to having an outing at Lake Maxinkuckee once each year and now we have arranged for one this year, September 4, 5, and 6, which dates are Saturday, Sunday and Monday, respectively, the latter being Labor Day and a holiday.

The hotel headquarters will be the Palmer House and such as know they will attend should at once make their reservations by writing the manager of the Palmer House, Culver, P. O., Ind.

Lake Maxinkuckee is a beautiful lake of over 1,800 acres, affording good fishing, boating and swimming. The Culver Military School is located there and many attractions not usually found at other resorts are to be found there.

This is to be simply an outing for grain dealers, millers and their friends when a few days of rest and social enjoyment may be had with friends, acquaintances and those engaged in similar business occupation. Maxinkuckee is about 32 miles north of Logansport on the Michigan Division of the Vandalia (Penn.) Railroad and about 15 miles south of Plymouth, which is located on the P. Ft. W. and C. R. R. so all who wish to go by rail will find it easy to reach and such as wish to go by automobile will find good roads from North, South, East and West, so all can easily reach there by any means of travel they desire to employ.

This invitation is for all grain dealers, millers and their friends, not only in Indiana, but in other states.

Should business conditions be such as to require any formal action on the part of the trade, provision will be made for conferences, otherwise the time will be given up to fishing, boating, swimming and other informal social activities and enjoyment.

Let all good fellows and their lady friends attend this outing.

MEETING OF NEW YORK DEALERS

On August 12 and 13 the annual meeting of the New York State Hay & Grain Dealers Association was held at Syracuse.

The full report of the meeting did not reach us before going to press but will be given next month. President Fred M. Williams presented his annual address at the first session, in part as follows:

Before the close of the 1919 crop season an unusual condition existed in the hay trade throughout the country. After the clearing up of a very unsatisfactory condition in May the market cleared up the early part of June and prices gradually advanced up to the middle of August. Prices the latter part of August declined \$6 to \$8 a ton. There was very little change in the market during September, October and November. In December there was a reversal of conditions, although the market was only moderately supplied. Trade throughout December was the most unsatisfactory ever known during the holidays. For a period of 10 days it was not so much a question of price as it was a problem of finding a buyer. The market cleared up the early part of January and continued steady throughout the month.

The early part of February conditions again reversed themselves. The severe storm of February 3, extending along the entire Atlantic Seaboard and well into the interior of the state, paralyzed traffic of every kind to an extent previously unknown in the history of the country; for a period of six weeks the streets of the City of New York were almost impassable for traffic of any kind. Practically the entire Manhattan system of surface trolley lines was not operated for nearly that period, during which the railroad yards were hlocked with ice and snow. The harbor was filled with ice which seriously interfered with the movement of freight from the New Jersey Terminals to Manhattan, Brooklyn, Staten Island and Long Island.

The city had hardly recovered from this deplorable condition when the outlaw railroad and longshoremen's strike took place, again paralyzing rail and water transportation for a period of nearly 30 days. During this time hay and grain values reached the highest point in the history of the trade.

Conditions during May, June and the early part of July were normal. Late in July an immense amount of hay commenced to arrive by water and this, together with heavy rail shipments widely distributed throughout the Metropolis has resulted in one of the most unsatisfactory situations that this market has been confronted with for a long time.

This, gentlemen, will give you something of an idea of what the hay receivers of the Metropolis have had to contend with during the past year. Business activities at the shipping end, from what I understand, have been confronted by a similar condition.

What Has Been Done Since Our Last Meeting

Pursuant to a resolution passed at our last meeting to the effect that an effort be made to inaugurate a campaign in favor of the increased use of horses in the field of local transportation and on the farm, on September 2 a communication was forwarded to the members of this Association and the hay, grain and feed dealers of Greater New York, announcing a meeting of the allied horse interests at the Pennsylvania Hotel on September 18. The meeting was well attended; a temporary organization was formed for the purpose of holding a general meeting on October 30 and 31 to perfect plans for a permanent National organization. This meeting was largely attended, representatives from 22 states were present, and the result was the formation of the Horse Publicity Association of America.

Early in October a complaint was received regarding the careless manner in which hay was being weighed and marked. The matter was taken up with the Surveyor of Weights at Albany requesting that it be taken up with county surveyors throughout the state. The reply was to the effect that the matter would receive prompt attention.

During the past year a number of conferences were held with railroad officials regarding the placing and removal of embargoes.

The matter of the New York market adopting the National grades was taken up with the New York Hay Exchange Association several times. The officers of the National Association were fully advised regarding the results of these conferences and what New York members desired in the matter of changes in their rules pertaining to the appointment of inspectors and changing grades to conform to the ideas of New York and other Eastern markets.

A complete report was furnished the chairman of the Grades Committee some time before the annual meeting of the National Association. I am frank to say that I concur with the opinion expressed by the majority of the members of the New York Hay Exchange Association, that until such time as the National Association can see their way clear to revise their rules and grades in a manner that will meet the requirements of the eastern markets, the National grades be not adopted.

This, to my mind, is a matter that should be carefully considered by the incoming administration and I recommend that a committee consisting of a member of this Association, the National, the New York Hay Exchange and representatives from the following cities—Boston, Baltimore, Philadelphia, Pittsburgh—be appointed and take the matter up at the earliest possible moment and endeavor if possible to revise the grades so that they will meet the requirements of the East with a greater degree of fairness than the National grades do as they now stand.

Buying mow-run hay is poor business and should be discontinued. This matter has been taken up repeatedly at our meetings but owing to the competition among buyers, it has never been put into practice.

Farmers should be given to understand that they must bale their hay before offering it for sale, just as they arrange for the threshing of their grain; also that its purchase will be based on grade after it is pressed. The cost of operating hay presses by shippers absorbs a large share of the season's profits. Shippers should therefore get together on this proposition and make a determined effort to discontinue the old custom as soon as it can consistently be done. Moreover, it is claimed that a large percentage of the hay presses now in use are of antiquated style and produce bales of insufficient weight, often not more than 70 per cent as heavy as those produced by an up-to-date baler. This also results in losses to the farmer, the shipper and the railroads and the use of such balers should be discontinued both by dealers and by growers.

Disastrous Competition

To avoid disastrous competition you should talk things over with your competitors. Arrive at an understanding as to territories. Do not accept tag weights but purchase only on the basis of scale weight at time of delivery. Above all, discontinue buying poor, no-grade, unsound and trash hay which invariably means a loss to the shipper and could much more advantageously be consumed on the farm, where it is worth more as fertilizer than it would be if marketed. Finally, see that your presses use care in marking the weights on bales. Careless, unreadable figures are another source of loss. There has been considerable change during recent months in the method of weighing and marking hay which indicates carelessness, whether or not intentional, on the part of hay presses. This, moreover, constitutes a violation of the state law so that employees should be given to understand that they must comply with the law or suffer the consequences.

Traffic Department

Since the creation of the office of Traffic Manager two years ago, shippers and receivers have been provided with information pertaining to the transportation features of the hay, grain and produce business that previously was practically unobtainable. This result, together with the securing of prompt adjustment of over-charges in freight and of loss in damage claims, has proved to the satisfaction of all our members that such an office in the hands of the right man is an indispensable factor of the Association's work. Members who have not already consulted the traffic manager and have need to do so should not lose sight of this opportunity.

The Secretary's Office

I cannot commend too highly the splendid cooperation and assistance that I have had from Secretary Jones the past year, and to him credit is due for the large increase in membership since our last meeting. The Association will begin the new year with approximately 400 members, an increase of 100 having taken place since our last convention. In my opinion there will be very little difficulty in increasing the membership to 600 by the time we meet in convention in 1921.

Increased Rates

The heads of our great transportation lines have claimed for years that freight rates have not produced sufficient revenue to maintain the properties in condition, to provide adequate transportation and to allow for needed new construction. A recent decision of the Interstate Commerce Commission has granted an increase in rates which should enable the railroads of the country to put their properties within the next 12 months in a condition to handle the commerce of the country much more satisfactorily than it has been handled during the past few years.

In the matter of the handling of transportation problems in the past I do not believe that there has been exercised on the part of either the railroads or their patrons, the hearty cooperation that should exist in order to produce the most satisfactory results for all concerned. Carelessness and indifference on both sides have invariably resulted in a loss to all, which should be avoided as far as possible in the future. The old "public be damned" policy of some railroad officials is, I believe, a thing of the past. Railroads today are ready and willing to cooperate with their patrons on any proposition that will be beneficial to all interests.

Shippers and receivers in the future should avoid as much as possible the detention of cars in the matter of loading and unloading. Let them advise agents when ordering cars as to the kind of freight they desire to load, and cars will be furnished accordingly so far as conditions permit.

Preventing Damage in Transit

Shipments of hay and grain are often damaged in transit as a result of being loaded into dirty cars. If a car is furnished which has recently contained oil or other injurious substance and if it cannot be put in proper condition do not run a chance of damaging your shipment by loading it. Likewise before a car is loaded it should be thoroughly inspected and if the roof, sides, doors or ends are so defective that the contents are likely to be damaged by the elements while in transit it should be rejected. If, finding that only minor repairs are needed to place a car in proper condition, a shipper accepts it, it is to his interest and also an aid to the railroad company if he will make the repairs himself. They will never cost very much and it would be impossible to estimate the loss to the hay and grain trade that has been caused in the past by the neglect of defective car doors and fastenings which if remedied before the cars were loaded would have prevented the damage and saved considerable time and money.

Much could be done by merely covering the defective places with heavy building paper, held in place by laths or boards. I have noticed lately hundreds of cars leaving New York for the West with building paper covering the edges of the doors. I believe that if the matter were brought to the attention of the railroad officials they would supply the paper, cleats and nails if the shippers would do the work.

The loading of cars to their full capacity is another important point. On account of their weight and bulk, shipments of hay and straw undoubtedly produce the least tonnage returns of any of the principal farm products shipped. This means a loss of tonnage and more or less interference with the movement of other commodities. Shippers should, therefore, endeavor at all times to secure large cars and to load them to as near capacity as possible.

The Permit System

This method of handling traffic has had a thorough trial during and since the war and in the opinion of shippers and receivers has proved very unsatisfactory, to say nothing of the great injustice that it imposes upon thousands of shippers. Therefore we respectfully request the railroads to discontinue this method of regulating the hay traffic and to return to the embargo plan that was previously in force, plac-

ing the matter of handling the hay and straw business in the territory of Greater New York in the hands of a joint agent. Let them, instead of permitting shipments to be billed to innumerable out-of-the-way stations as in the past, confine these as far as possible to the regular hay terminals and track delivery stations where it is convenient for buyers to supply the consuming trade.

The following are the stations where hay and straw can be handled to the best advantage by all concerned.

New York Central—Thirty-third Street; 130th Street; Westchester Avenue.

Pennsylvania R. R.—Thirty-seventh Street.

Eric R. R.—Twenty-eighth Street.

Brooklyn Eastern District Terminal, Baltic or Atlantic Terminal, Long Island R. R.—Bushwick Station, Flatbush Avenue.

If shipments were confined to these points it would to a very great extent prevent fluctuations and the demoralized market conditions that frequently occur under the present system of scattering shipments to innumerable out-of-the-way places. The disposal of such shipments takes just so much trade away from the regular terminals and is responsible for a large percentage of the present car detention.

This is a matter that should receive attention by the railroads, the receivers and the shippers at the earliest possible moment, all of whom should co-operate in working out some feasible plan for the handling of this traffic in the future, that will be beneficial to all concerned.

MEETINGS IN PACIFIC NORTHWEST

The annual meet of the Pacific Northwest Grain Dealers Association was held at Portland, Ore., on July 13. President S. C. Armstrong opened the meeting with a short address, saying in part:

Since the beginning of grain production in the Pacific Northwest the grain trade has been wholly unorganized and the business has been conducted according to the individual ideas of each separate dealer whether he came from the farm or office. So divergent has been the methods practiced that each dealer endeavors to rush out and do as much business as possible in secret, then retire and watch the action of his competitors. This process has not produced grain men in all cases and has frequently caused bankers to carefully question the grain trade as a safe business to finance. There is a definite channel



PRESIDENT S. C. ARMSTRONG

through which all grain must flow from the farm to the final consumer, and under organization there is no business so certain of volume, so sure of movement or so safe to finance. Without organization the whole fabric of the trade is woven about the integrity of the individual and may prove satisfactory throughout or, under practically the same conditions may be wholly unsatisfactory and bring about serious loss.

Max H. Houser told of his work as zone agent of the Grain Corporation.

H. N. Stockett, who is secretary of the Northwestern Grain Dealers Association and recently appointed secretary of the Pacific Coast organization, outlined a plan for developing the Association in strength and membership and also in its usefulness to members.

Edwin Cowan, president of the Exchange National Bank of Spokane, spoke at some length on the financial and crop situation of the Northwest.

The officers for the new year were elected as follows: President, S. C. Armstrong, Seattle; vice-president, I. C. Sanford, Portland; H. N. Stockett, secretary.

TRI-STATE DEALERS MEET

The Tri-State Country Grain Dealers Association met in Minneapolis, July 7-9. President A. E. Anderson of Cottonwood, Minn., presided. Among the speakers were Leslie F. Gates, president of the Chicago Board of Trade; Frederick B. Wells of Minneapolis; C. T. Jaffray, president of the First National Bank of Minneapolis, and W. T. Tyler, vice-president of the Northern Pacific Railway.

The election of officers resulted as follows: President, N. R. Tacklind, Drayton, N. D.; vice-president, Otto M. Nelson, Hills, Minn.; second vice-president,

E. Blankenburg, Henry, S. D.; third vice-president, Arthur Speltz, Albert Lea, Minn.; treasurer, H. R. Wallin, Marshall, Minn.

Directors: A. E. Anderson, Cottonwood, Minn.; T. F. Dahl, Minneota, Minn.; N. R. Tacklind, Drayton, N. D.; J. F. Connor, Nortonville, N. D.

MICHIGAN DEALERS MEET

The 19th annual convention of the Michigan Hay & Grain Dealers Association was held in Battle Creek, Mich., on July 27, with headquarters at the Post Tavern. The registration opened at 10 o'clock, and approximately 200 were registered, of which number about 125 were members of the Association.

At one o'clock the members were taken out to the plant of the Postum Cereal Company in special cars, and a splendid luncheon was served them as guests of the company. The company's products made up the greater part of the luncheon.

After the luncheon, the business meeting was held on the lawn in front of the company's office. The meeting was called to order by the president, A. J. Carpenter, who introduced A. B. Williams the secretary of the Postum Cereal Company. Mr. Williams said that he was always glad to welcome visitors to the plant, and especially the hay and grain men, some of whom the company has done business with, and some with whom they will do business in the future. Inasmuch as the Postum company is one of the largest users of cereals, their business relations with grain men has been extensive.

A. L. Miller gave the address of welcome, in behalf of the city and the Chamber of Commerce. Following Mr. Miller's address, Secretary J. C. Graham read the minutes of the last meeting, and stated that the Association was in better shape now than it had been in 10 years, but was in need of new members. Because of the death of Albert Todd, who served as treasurer of the Association for eight years, Harry Northway of Owosso consented to complete the term, and the treasurer's report as prepared by Mr. Northway was read by the secretary. A motion was then passed accepting both the secretary's and the treasurer's reports.

The president then appointed the Nominating, Auditing and Resolutions Committees, who were asked to retire and report as soon as possible.

ADDRESS OF SECRETARY TAYLOR

J. Vining Taylor, secretary of the National Hay Association, addressed the convention. His subject was "Some Pertinent Facts Concerning the Hay Trade."

It is not my purpose, gentlemen, to make a speech, even were I capable of doing so, but I just want to talk to you fellows in an off-hand way in respect to some pertinent facts concerning your business, especially to those who were not in attendance at the last Convention of The National Hay Association in Cincinnati.

For 27 years our organization has been fighting your troubles, doing everything within its power to eliminate the evils, and to put the hay business on a higher plane. I sincerely believe that we have only been forming the foundation or doing preparatory work for what is to come, and that now we are in position to do really big things.

Our Association, through its Board of Directors, ordered the president to appoint a committee to proceed to Washington as soon as practicable to demand an immediate increase in both freight and passenger rates, such increase as would enable them to produce rolling stock. This is their excuse today, i. e., that they are not getting enough revenue from service to maintain the roadways and equipment. Personally, I believe that it is all a hoax, and I think I could dispel this thought in the minds of many men if I would but take the time. But after all, it is service we want, and for which we can afford to pay.

The traveling inspectors that our Association intends using is to be tried out for your benefit as well as the other members of our Association.

Yesterday, in the city of New York our Association had a representative before the Interstate Commerce Commission Examiner on the matter of liability of telegraph companies in transmitting important messages. It would, indeed, be a surprise to you to know the loss to the hay and grain interests of this country through carelessness, negligence and other causes under the control of telegraph companies. We are in favor of a plan by which the sender can insure the correct transmission of his message for a nominal sum. Who is there among you who would not be perfectly willing to insure your message when it is of value, and to know that there is something back of it? Mr. Goemann, who represented our Association at the hearing, is a transportation man of exceeding ability, and I am sure that he presented this matter to the Commission in so convincing a manner as to have real effect.

It is the purpose of our organization to consolidate and combine the office of the traffic manager, now in Auburn, N. Y., with my office in Winchester, Ind. Better service can be rendered, and Mr. Sims and myself have much in common that can be worked out that will greatly benefit our members.

You would be surprised at the results Mr. Sims is getting, in fact, he is saving our people thousands and thousands of dollars each year in collecting their claims and advising them of correct rates and other transportation difficulties. I would most respectfully and earnestly suggest to the Michigan Association that you take advantage of his ability and his service whenever you need it. There is only a very slight charge made for same, and those of our members who have used him are highly pleased.

Charles Quinn, secretary of the Grain Dealers National Association was to address the meeting on the subject of "Grain Problems," but because he was unavoidably delayed in arriving, his formal address was not given. He spoke for a few moments about things in general, and of the extensive program of propaganda now being carried on by the farmers. He stated that unless the middlemen

started an educational campaign, they would find themselves in a critical position. He said it was absolutely necessary for their own good to inform the public of the truth, and prove that they were an economic good. He also said that the farmers have gotten so far with their campaign that some of their results are shown in the speech of acceptance delivered by Senator Harding, the Republican nominee for the presidency, and that we would undoubtedly see some effects of it in Gov. Cox's acceptance, as the Democratic nominee is not going to let the Republican nominee get away with the election if he can help it.

Mr. Quinn's talk was followed by a general discussion of trade problems by all present. The Resolutions Committee reported and the report was adopted.

The members were then taken through the plant of the Postum Cereal Company, and shown how Grape Nuts were made, and the wonderful packaging machinery used for packaging Grape Nuts, Post Toasties and other products of the company. After seeing the plant, the guests were then taken back to the Post Tavern in their special cars.

The convention was closed with a banquet in the large dining room of the Post Tavern. Places were set for 200 guests. Immediately before the dinner was served, the officers for the coming year were announced. They are as follows: President, J. M. McAllister, Saginaw; first vice president, S. O. Downer, Birch Run; second vice president, Fred Kinde, Bad Axe; treasurer, Harry Northway, Owosso; secretary, John C. Graham, Jackson.

The directors are as follows: Edward Aymer, Fairgrove; D. Mansfield, Remus; Wm. Francis, Mt. Pleasant; Jay Baldwin, New Haven; Harry Northway, Owosso.

The resolutions which were adopted began with a tribute to the memory of the late Henry Todd, treasurer of the Association, and continued as follows:

We believe that much closer attention should be paid to methods of growing, harvesting and baling for while the hay crop is one of the most important crops in the country it is the most neglected.

Therefore, he it resolved, that we encourage more care being taken in the growing and harvesting, and that a more uniform bale with fewer sizes and greater accuracy in weight be given.

Resolved: That we are opposed to any rule that has for its purpose the further reduction of top or air space in cars loaded with grain less than 24 inches, and that we much prefer 30 inches of space to insure adequate room for inspection.

Resolved: That all dealers should this year carefully ascertain the cost of handling hay and grain and in doing so take into account the increased cost of labor, repairs, machinery, interests, losses and experiences incident to the delay in getting cars and the movement of same into the market, then allow themselves a fair margin of profit that will not only meet all the cost, but allow a net profit on the commodities handled.

Resolved: That the Detroit Board of Trade be requested to publish closing quotations on all grains which accurately reflect prices at which sales can be made.

Mr. McAllister informs us that, on account of business changes, he will not be able to accept the presidency, so that the cares of that office will devolve upon Vice-President S. O. Downer for the entire year.

NEW TABLES FOR GRAIN EXPORTERS

A new book of the greatest value to grain exporters has just been issued by The John Hinricks Cable Code Company, Maryland Casualty Building, Baltimore. It is entitled "Grain Export Calculation Tables," by Frederick H. Baugh, for wheat, corn, rye, oats, barley, peas and oil cake, with price range of \$1 to \$5 per bushel for wheat; \$0.75 to \$3.50 for corn, barley and rye; \$0.50 to \$2 for oats; \$1 to \$4 for peas; and \$25 to \$85 per ton for oil cake.

The rates of exchange are taken care of with sterling range from 250 to 500; francs and lire from 30 to 5; marks from 1 to 25; guilders from 25 to 50; and krone from 13 to 30.

Included in the tables also are calculations for wheat per quarter of 480 pounds and 500 pounds; barley per quarter of 400 pounds and 448 pounds; and peas per quarter of 480 pounds and 504 pounds.

All possible grain quotations to Great Britain, Holland, Sweden, France, Italy, Germany, Denmark and Norway are covered with only one multiplication necessary in each case. The time which exporters can save with these tables is incalculable. They are also of the greatest value to crop statisticians and others who are interested in crop figures and prices which come to us as a rule in the terms of the country of origin.

The book is bound in flexible leather, has 104 pages and is priced at \$15. We would say that for anyone who has use for the tables at all, the time saved by referring to the tables would quickly cover the cost. The high repute and experience of the publishing firm is guarantee of the accuracy of the tables.

A COMMERCIAL estimate of the consumption of wheat in the United States for the crop year ended July 1 was 528,000,000 bushels, which is 32,000,000 in excess of the estimates for the previous season. Seed requirements were placed at 90,000,000 bushels.

**EASTERN**

A grain elevator and mixed feed mill is to be erected at York, Pa., by the Anderson Bros. Company.

A grain elevator has been installed at Queen Anne, Md., by R. H. Barnes. He purchased a building there and remodeled it into a grain elevator.

ILLINOIS

Farmers in the vicinity of Nora, Ill., have purchased the elevator there formerly owned by Dell Butler.

Roberts & Daugherty of Galesburg have purchased the grain business of the F. L. Hough Company at Rio, Ill.

The contract has been let by Geo. Quick & Son of Oakford, Ill., for the erection of a 14,000-bushel additional storage tank.

The Beckemeyer Exchange is contemplating increasing its capital stock and erecting an elevator and warehouse at Beckemeyer, Ill.

The elevator and lumber yards of Bunyan & Evans at Hammond, Ill., have been purchased by the Horton Grain & Lumber Company.

V. Wilthardt, Geo. M. Muller and C. W. Vercler have incorporated at Washington, Ill., as the Washington Co-operative Farmers Grain Company. Its capital stock amounts to \$40,000.

The capital stock of the Kewanee Farmers Elevator Company of Kewanee, Ill., has been increased from \$15,000 to \$20,000. The name has also been changed to that of the Kewanee Farmers Co-operative Elevator Company.

The elevator of the Armour Grain Company at Big Rock, Ill., was sold by that concern to the Big Rock Farmers Co-operative Elevator Company. A. R. Jones will be retained by the new owners as manager of the establishment.

The Lane, Ill., elevator of the Harrison Ward Company of Clinton, has been sold to the Lane Co-operative Grain Company. The elevator will have storage capacity of 25,000 bushels. Byron Miller, Arthur Hartsock, C. Spainhour, James Lett, Orval Lane, Geo. Barnett and Victor Day are interested.

INDIANA

A modern warehouse is to be erected at Evansville, Ind., for the Miller Hay & Grain Company.

A final certificate of dissolution has been filed by the J. M. Dunlap Grain Company of Franklin, Ind.

A preliminary certificate of dissolution has been filed by the Washburn Grain Company of Remington, Ind.

The elevator of the Wolcott Grain Company at Wolcott, Ind., has been equipped with a new set of scales.

The Farmers Co-operative Elevator Company of Oakville, Ind., has increased its capital from \$15,000 to \$25,000.

The Kirkpatrick Grain Company has completed a new 35,000-bushel elevator at Kirkpatrick, Ind. W. A. Gray is manager.

The elevator formerly owned by G. T. Burk at Peterson, Ind., has been purchased and will be operated by the Adams County Equity Exchange.

The new vitrified tile elevator of the Ambia Grain Company at Ambia, Ind., has been completed and machinery installed. J. M. Heinen is manager.

A modern concrete elevator of 20,000 bushels' capacity is being erected at Boonville, Ind., for the Elberfeld Milling Company. F. G. Schultz is president of the firm.

The Burrell Engineering & Construction Company has the contract from Lyon & Greenleaf of Ligonier, Ind., for the erection of a 28,000-bushel elevator at Millersburg, Ind.

Capitalized at \$50,000, the Wheatland Elevator Company has been incorporated to conduct a business at Wheatland, Ind. Andrew E. Nicholson, Geo. Frick and Simon H. Robinson are the incorporators.

Chas. M. Knowiton is president, Ralph C. Richardson vice-president, Wm. H. Roberts secretary, and Oliver C. Kemper treasurer of the Pierceville Flour Mill & Grain Elevator Company, which will operate at Pierceville, Ind. H. C. Crum is super-

intendent of the plant. The company has purchased an elevator and mill from C. H. Crum for \$15,000.

The Hancock Co-operative Milling & Elevator Co. has been incorporated at Greenfield, Ind. Its capital stock is \$75,000. L. A. Orr, A. N. Fisher, Richard Hagans and A. E. Hartley are interested.

Herman Rothenberger has purchased the elevator at Jefferson (Frankfort p. o.), Ind., and will conduct it as the Jefferson Grain Company. The elevator was formerly owned by the Mollette Grain Company.

THE DAKOTAS

L. Carlson is building a new grain elevator at Veblen, S. D.

The grain elevator of F. A. Croal at Miller, S. D., has been sold by him to H. A. Riley.

The farmers have rebuilt their elevator at Chancellor, S. D., and have it in operation.

The Farmers Co-operative Elevator Company has been incorporated at Emerado, N. D.

Another grain elevator is to be erected at Athol, S. D., for the Farmers Elevator Company.

The Bagley Elevator Company sold its elevator at Summit, S. D., to one of its old employees, Anton Jydstrup.

The Langdon Elevator Company, operating at Langdon, N. D., will erect an addition to its elevator there.

The Stirum Grain Company has been incorporated to operate at Stirum, N. D. Its capital stock is \$25,000.

Construction work has been completed on the new elevator of the Farmers Union at Missionhill, S. D.

Plans are under way for the rebuilding of the grain elevator at Sheldon, N. D., which was burned not long ago.

The Bagley Elevator at Java, S. D., has been rented by W. F. Ewald and will be conducted by him hereafter.

The interest of Frank Sloan in the Union Elevator Company, Madison, S. D., has been sold by him to Ed. Mueller.

The Peoples Elevator Company has been organized and will operate at Ashley, N. D. Its capital stock is \$25,000.

The elevator of Nils Dokken at Leeds, N. D., is being overhauled. A new concrete foundation, steel pan, dumping device and driveway is being built.

A new cleaner of from 800 to 1,000 bushels' capacity per hour is to be installed in the elevator of the Sheldon Farmers Elevator Company of Sheldon, N. D.

A stock company, comprised of farmers, has purchased for the consideration of \$15,000, the elevator of the St. Anthony & Dakota Elevator Company at Cando, N. D.

The Imperial Elevator at Union, N. D., has been purchased by J. T. Halverson. He has changed the name to that of the Union Independent Elevator Company.

Capitalized at \$40,000, the Philip Mill & Elevator Company has been incorporated at Philip, S. D. H. J. McMahon, A. M. McMahon and G. M. Pierce are interested.

The Corinth Grain Company has been incorporated to operate at Corinth, N. D., capitalized at \$16,000. T. G. Winter, L. G. Truesdell and C. B. Askelson are interested.

W. Chamley has purchased a grain elevator at Cooperstown, N. D., and will conduct it. He was formerly in charge of the Hatton, N. D., elevator of the Hatton Grain Company.

A modern grain elevator of 30,000 bushels' capacity and consisting of 15 bins has been completed at De Smet, S. D., for the Farmers Elevator Company. The plant is of reinforced concrete construction and stands 93 feet high.

Considerable repairing has been done to the elevator of the Powers Elevator Company at Medina, N. D. A new foundation is being built under the structure and new pit installed. A large engine was put in to take the place of the old one.

The Bowman Elevator at Washburn, N. D., has been sold out to T. Stafslein and C. B. Nuppen. O. V. Bowman has owned and operated the plant

for the past six years. The new owners have organized as the Riverside Grain Company. Capital \$10,000.

The South Shore Farmers Grain & Fuel Company has been incorporated at South Shore, S. D., capitalized at \$15,000. O. C. Frink, W. C. Klix and W. J. Bloom are interested.

Two new scales have been purchased and will be installed in the elevator of the Foley Farmers Elevator Company of Foley (Waterloo p. o.), S. D. Wm. Uthe is president of the company.

Articles of incorporation have been filed for the Watford Grain Company which will operate at Watford City, N. D. T. G. Winter, L. G. Truesdell and D. L. Williams are interested.

Farmers in the community of Kongsberg, N. D., have organized a co-operative elevator company and have purchased the grain elevator there from I. L. Berge. The elevator has a capacity of 30,000 bushels.

The elevator at Fairmount, N. D., formerly conducted by O. M. Woodward, has been purchased by P. G. Miller of Raymond. Repairs are to be made to the plant, after which operations will be continued in it.

Extensive additions are being built to the elevator and storage tank of the Tri-State Milling Company of Bellefourche, S. D. A new cleaner will be installed which will be capable of handling 1,000 bushels wheat per hour.

CANADA

The Kenny Farm Agency, Ltd., is erecting a grain elevator at Red Deer, Alta., costing \$10,000.

The Tubman Grain Company, Ltd., has been incorporated at Wilcox, Sask. Its capital stock is \$30,000.

The foundation has been laid for a \$150,000 addition to the elevator of the Robin Hood Mills, Moose Jaw, Sask.

Work has been completed on the construction of a 30,000-bushel elevator at Hyas, Sask., for the Liberty Grain Company.

Two 30,000-bushel houses have been completed by the Atlas Elevator Company, one located at Ituna and the other at Lestock, Sask.

The Atlas Elevator Company has appointed J. J. Laughlin as superintendent of its Central Division. His headquarters will be at Regina, Sask.

The Parish & Himbaker Grain Exchange of Winnipeg, Man., contemplates building an elevator at Brooks, Alta., with capacity of 33,000 bushels.

The general contract for erecting its grain elevator has been placed by the Quaker Oats Company. The elevator will be located at Bawlf, Alta.

The State Elevator Company has chosen H. A. Graham, its former buyer at Milden, Sask., to act as its traveling superintendent in Swift Current territory.

W. E. Watts is now the traveling superintendent in northern Saskatchewan territory for the Canadian Elevator Company. He was formerly agent at D'Arcy, Sask.

The Midland Grain Company, Ltd., of Midland, Ont., has been issued supplementary letters patent to increase rate of interest on preferred shares from 7 to 8 per cent per annum.

Elevators are being erected at Hodgeville and St. Boswell, Sask., for the Alberta Pacific Elevator Company. The company is also moving its elevator from Hearne, Sask., to Bateman (no p. o.), Sask.

Northern Saskatchewan is to be covered for the Saskatchewan Elevator Company, Ltd., by L. P. Mohr. He will have his headquarters at Saskatoon. Mr. Mohr was formerly Shellbrook agent of the same firm.

A notice of dissolution has been filed by McGaw-Dwyer, Ltd., of Winnipeg, Ont., elevator operators. W. H. Dwyer, Ltd., is taking over the elevators; W. E. McGaw the shipping and exporting business. He will operate this as McGaw Grain Company, Ltd.

Elevator building is progressing rapidly in Canada, especially in Saskatchewan territory. New houses from 30,000 to 35,000 bushels' capacity are being erected at Hodgeville, Bateman, St. Boswell, Kuroki, Lucky Lake, Amazon, Pelly, Togo, Duval, Muscow, Kitchen, Lintlow, Watson, Ituna, Debden, Eurgess, Sask., and Bawlf, Alta., and Teulon, Man.

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Two larger elevators are being built at Verigin, Sask., one of 65,000 and the other of 70,000 bushels' capacity.

The elevator of the Pioneer Grain Company at Killam, Alta., which burned last spring is being rebuilt. The Pioneer company is also building a new house at Lintlow, Sask., and completing one at Kitchen, Sask.

SOUTHERN AND SOUTHWESTERN

The Tennessee Grain Company of Dyersburg, Tenn., has surrendered its charter.

The Hannifen Elevator at Broken Arrow, Okla., has been purchased by F. P. Blount.

The Cox-Henry Grain Company of Dill, Okla., has been purchased by the Farmers Co-operative Association.

The Buffalo, Okla., elevator of the L. O. Street Grain Company has been sold to Harold Street. He will manage it.

An elevator is being built at Sageeyah, Okla., by Hurst & Co., of Claremore, Okla. F. D. Swanwick will be manager.

The capital stock of the Farmers Elevator Company of Electra, Texas, has been increased from \$15,000 to \$40,000.

The Farmers Co-operative Exchange has purchased the elevator at Snyder, Okla. O. J. Borum will be in charge.

The elevator and mill of the Perry Mill Company of Perry, Okla., has been purchased by the Perry Mill & Elevator Company.

Several improvements are being made to the plant of the Farmers Co-operative Elevator & Supply Company of Newkirk, Okla.

The Yoakum Mill & Elevator Company of Yoakum, Texas, has equipped its plant with a corn sheller of 500 bushels corn per hour.

The interest of P. D. Newsome in the Rayford-Newsome Grain Company, Cleburne, Texas, has been purchased by J. P. Rayford.

The elevator of O. W. Hutchinson at Glazier, Texas, and Shattuck, Okla., have been purchased by J. M. Higgins of Lone Wolf, Okla.

A mill and elevator is to be built at Yoakum, Texas, for F. O. Crawford. It will be of reinforced concrete faced with tile and will cost \$18,000.

M. A. Jones, G. T. Wherritt and C. R. Allen are the incorporators of the Farmers Grain & Elevator Company of Trail, Okla. Its capital stock is \$5,000.

H. T. Walsh, A. P. Nelson and G. R. Heimer have incorporated the Farmers Co-operative Grain Company of Choteau, Okla. Its capital stock is \$25,000.

The interest of G. W. Binyon in the Binyon Grain Company, elevator operators at Blanchard, Okla., has been purchased by Geo. Marsh of Wynoka, Okla.

The Farmers Co-operative Company has purchased the elevator at Pryor, Okla., from O. O. Snyder. Mr. Snyder has been in the grain business for 25 years.

Capitalized at \$200,000 the W. A. Randels Grain Company has been incorporated at Enid, Okla. E. A. and W. M. Randels and Jessie Marie are the incorporators.

The Sun Grain & Feed Company of Guthrie, Okla., has changed its name to that of the Sun Grain & Export Company. Its capital stock has also been increased to \$500,000.

The Star Elevator Company has been incorporated at Nicholasville, Ky., capitalized at \$2,000. C. S. Evans, J. R. Williams and Henry E. Wetzel are named as incorporators.

C. H. Cox, Henry Bird and John Henry have filed articles of incorporation to operate at Enid, Okla., as the Bird-Winslow Grain Company. Its capital stock is \$25,000.

Two grain elevators, one brick house and one frame one, at Lexington, Ky., have been leased from the Lexington Roller Mills by the Cleveland Storage Company of Cleveland, Ohio.

The capital stock of the Miller Jackson Grain Company of Tampa, Fla., has been increased from \$150,000 to \$400,000. The company conducts a wholesale grain and feed business.

New quarters are now occupied by the Marshall-Summers Seed & Grain Company at 703 Lady Street, Columbia, S. C. This change in location will facilitate the handling of grain, feeds and seeds.

The South Texas Grain Company of Houston, operating at Houston, Texas, has changed its name to that of the South Texas Grain Company and has increased its capital stock from \$120,000 to \$300,000.

The American Milling Company is building a 20,000-bushel elevator at Elk City, Okla. Its elevators at Carpenter and Texola are being completed and the company is planning on erecting plants at Sayre and Erick.

H. L. Starks, S. Woodward, Wm. Nelson, James Smith, H. Johnson and F. M. Demon have incorporated the Co-operative Coal, Grain & Ice Company

at Memphis, Tenn., to conduct a wholesale and retail business in grain, coal and manufacturing and selling ice. Capital amounts to \$5,000.

The Huffine Elevator at Frederick, Okla., has been purchased by the Farmers Co-operative Association. It will be operated as the Frederick Grain & Cotton Company. Consideration was \$17,000.

The elevator of the El Reno Mill & Elevator Company at Union, Okla., has been sold to the Farmers Co-operative Elevator Company. The El Reno firm in turn purchased the Yukon Grain Company's establishment at that place.

IOWA

A farmers co-operative elevator company is to be organized at Vancleve, Iowa.

A 200-ton coal house is being erected at Massena, Iowa, for the Massena Grain Company.

The elevator of the Des Moines Elevator & Grain Company at Des Moines, Iowa, is to be remodeled.

A 30,000-bushel fireproof tank elevator has been completed at Newell, Iowa, for the R. B. Galbraith & Co.

A grain elevator, costing \$15,000, two stories high and of frame construction is to be constructed at Larchwood, Iowa.

The Farmers Elevator Company has completed a new elevator at Kingsley, Iowa. Has also built a two-story warehouse.

The Trans-Mississippi Grain Company has sold its business at Correctionville, Iowa, to M. H. Spurgeon and son, Harold.

The Ripp Grain & Milling Company's elevator at Armstrong, Iowa, has been overhauled and equipped with new machinery.

Farmers of Lucas County, Iowa, are organizing to erect an elevator at Chariton, Iowa. J. C. Williamson is secretary of the firm.

E. H. Sullivan, M. A. Kluever, A. J. Mylie and others have incorporated at Bridgewater, Iowa, as the Farmers Co-operative Company. Its capital stock is \$25,000.

The Farmers Union at Blockton, Iowa, is interested in the construction of a new fireproof elevator there which they will operate as the Farmers Co-operative Elevator Company.

W. D. Crouse, W. D. James and others have incorporated the Farmers Co-operative Exchange at Prescott, Iowa. The company recently purchased the elevators of the Gault Bros.

Farmers around Conrad, Iowa, have purchased the Randall & Price Elevator and lumber business and will organize a co-operative company. Possession was given them on August 1.

The charter of the Farmers Elevator Company at Blairsburg, Iowa, has been amended and capital stock increased to \$25,000. The business of the firm has been changed to a co-operative one.

The Farmers Co-operative Exchange has purchased for \$5,000 the grain elevator at Rock Rapids, Iowa, formerly owned by Stockdale & Mack. The exchange will also erect an elevator on the site occupied now by the Empire Construction Company.

The Quaker Oats Elevator at Ottosen, Iowa, has been purchased by the Farmers Co-operative Elevator Society. Ray Bratcher has been retained as manager. The company recently incorporated for \$75,000. Geo. Struthers, L. Holden and P. A. Holt and others are interested.

WESTERN

The Farmers Elevator Company of Roy, N. Mex., is planning on building a grain elevator at Roy.

The Greeley-Schmidt Elevator Company has purchased a grain elevator of 30,000 bushels' capacity, located at Big Sag (no p. o.), Mont.

The elevators of the Emporium Elevator Company at Shelby, Mont., are to be run separately in the future instead of as one unit.

The Scott-George Grain Company of Denver, Colo., has started the erection of a grain elevator of 20,000 bushels' capacity at Agate, Colo.

The Cherry City Milling Company of Salem, Ore., is to erect a \$10,000 grain elevator at Derry, Ore. The company is also building a new warehouse at Salem.

C. C. Madge is president of the Farmers Co-operative Grain Company which was recently incorporated at Havener, N. M. Its capital stock is \$25,000.

Capitalized at \$50,000, the Twodot Farmers Elevator Company has been incorporated at Twodot, Mont. C. M. Klinger, L. Sigueland and others are interested.

W. G. Klussman has sold his grain warehouse at Irving, Lane County, Ore., to the Portland Flouring Mills Company. New machinery is to be installed by the new owners.

Capitalized at \$100,000 the Northwestern Dock & Elevator Company has been incorporated at Portland, Ore. R. S. Tracy, H. E. Sanford and Chas. S. Cohn are interested. The company will maintain

docks, wharves, warehouses, elevators, and deal in cereals, farm and food products, lumber, etc., and conduct general export and import business.

The T. D. Phelps Grain Company of Denver, Colo., has let the contract for a 15,000-bushel elevator at Elbert, Colo.

A site has been purchased at Weiser, Idaho, by the Tri-State Terminal Warehouse Company, on which it will erect a warehouse and elevator.

John and Peter Peterson and W. J. Brady have incorporated the Peterson Bros. Grain & Fuel Company at Tacoma, Wash. The capital stock of the corporation is \$65,000.

Three 20,000-bushel tanks have been completed at the plant of the Sterling Elevator Company of Sterling, Colo., which will give the company total capacity of 80,000 bushels.

The Holley Milling Company is building a new elevator at Salt Lake City, Utah, increasing its storage capacity from 50,000 to 130,000 bushels. The tanks are of concrete.

A modern elevator and mill costing about \$25,000 is to be erected at Caldwell, Idaho, for the Caldwell Equity. The present elevator will be torn down to make room for the new house.

C. A. Morrison and D. Kleinberg have sold their interest in Kleinberg & Co., at Ellensburg, Wash., to W. F. Jahn & Co. The company will operate both at Ellensburg and Seattle.

The contract has been let by the Mark P. Miller Milling Company of Moscow, Idaho, for the erection of concrete storage and warehouse plant at Moscow. The warehouse will have capacity of 300,000 bushels.

A grain elevator of 100,000 bushels' capacity is to be erected at Brawley, Calif., to be ready for operation by January 1 of next year. Plans have been drawn for the new plant. San Francisco parties are interested.

An additional grain elevator of 600,000 bushels' capacity is to be erected to the plant of the Globe Grain & Milling Company of Salt Lake, Utah. This new addition will make the total storage capacity for the company, 1,250,000 bushels.

The Inter-Mountain line of elevators and warehouses, including 15 elevators and 12 warehouses, has been purchased by the M. M. Houser interests of Portland, Ore. They have also purchased three elevators of the Miller Bros. of St. Anthony.

OHIO AND MICHIGAN

The Wickens Grain Company is succeeded at Lansing, Mich., by the Lansing Grain Company.

The elevator of F. Sherrick at Beaver Dam, Ohio, has been sold to the Farmers Elevator Company.

John Wersing's elevator at Minster, Ohio, has been purchased by the Farmers Exchange Company.

The Clarksville (Mich.) Co-operative Elevator Company has purchased the property of the Cool Bros.

The Beaverton Elevator Company has been incorporated at Beaverton, Mich., with capital stock of \$50,000.

A big elevator is being built at Peterson's Crossing, near Forest, Ohio, by the Dola Co-operative Association.

The capital stock of the Powers Elevator Company located at Genoa, Ohio, has been increased from \$10,000 to \$50,000.

The capital stock of the Shepherd Elevator Company operating at Shepherd, Mich., has been increased from \$5,000 to \$16,000.

Switzer & White have sold their elevator located at Monnett, Ohio, to the Farmers Equity Association. The property sold for \$22,500.

The Bristol Elevator at Dunkirk, Ohio, has been purchased by the Wharton Farmers Co-operative Association. Consideration was \$16,000.

The Haviland Elevator Company of Haviland, Ohio, is building a new 20,000-bushel elevator to replace the one which burned last December.

The elevator and mill buildings of the Chatfield Grain & Elevator Company at Chatfield, Ohio, has been sold to the Chatfield Equity Association.

The capital stock of the Horn Bros. Company at Monroeville, Ohio, has been increased from \$50,000 to \$100,000. The firm deals in grain and implements.

The grain elevator at St. Johns, Mich., has been purchased from John F. Parr by the St. Johns Agricultural Association. Possession was given August 1.

The Cleveland (Ohio) Grain & Milling Company is having plans made for a new 2,000,000-bushel elevator and 6,000-barrel mill; also a warehouse and feed mill. The contracts for these buildings and their machinery equipment will be let in January.

The Polter Elevator and coal business at Belle Center, Ohio, has been purchased by the Healy Bros. and Milton Yoder. The business will be consolidated with the seed business of the Healy Bros. and will be conducted as The Healy Bros. Seed

Company. The Polter Elevator is to be overhauled and improved, making it modern in every detail. Bins with capacity of 50,000 bushels grain will be installed.

The Willshire Grain Company of Willshire, Ohio, has been dissolved and its assets and goodwill transferred to the Willshire Equity Union Exchange Company.

The grain elevator of Henderson & Coppeck at Laura, Ohio, has been sold to W. C. Mote. Mr. Mote was formerly with the Farmers Elevator at Upper Sandusky.

The Morrison & Thompson Elevators at New Bavaria, Holgate, Wisterman and North Creek, Ohio, have been purchased by G. T. Morrow of Francisville, Ind.

The elevator formerly conducted by the Litchfield Elevator Company at Litchfield, Ohio, has been purchased by the Litchfield Exchange Company, a co-operative concern.

The elevator at Charlotte, Mich., which has been operated under the management of Mack Sines, has been purchased by the New Citizens Elevator Company of Vermontville.

The Farmers Co-operative Elevator Company of Collins, Ohio, has purchased the grain elevator at Wakeman and has made plans for removing it to Collins where it will operate it.

The Judkins Grain Elevator and Mill at Ada, Ohio, has been purchased by the Ada Farmers Equity Exchange Company for \$18,000. The mill will be operated on a co-operative basis.

The Emory Farmers Grain Company has been incorporated at Springfield, Ohio, capitalized at \$35,000. The company will either buy or build an elevator and conduct it on a co-operative basis.

I. S. Barnes, C. H. Moss and others have incorporated the Westerville Farmers Exchange Company at Westerville, Ohio, to build and operate a grain elevator. Its capital stock is \$50,000.

The business of the Newaygo (Mich.) Co-operative Association has been purchased by the Gleaners' Clearing House Association of Grand Rapids. It will erect a modern elevator on the property.

The Canton Feed & Milling Company of Canton, Ohio, is the new owner of the elevator, flour and feed mill of E. C. Moore and F. C. Mathews of North Benton, Ohio. The mill has capacity of 50 barrels per day; elevator has storage capacity of 6,000 bushels; and mill storage capacity of six carloads of feed.

MINNESOTA AND WISCONSIN

The Pfeffer Bros. have sold their elevator at Fairmont, Minn., to Geo. Winzenberg.

Julius Stellmacher has purchased the elevator of Amos G. Eaker at Beaver Dam, Wis.

C. R. Donnelly has purchased the elevator located at Wall Lake (r. f. d. Fergus Falls), Minn.

The Tanner Elevator at Grey Eagle, Minn., which was damaged by a recent cyclone, is being torn down.

James Gillespie has equipped his plant at Stephen, Minn., with a grain separator of Richardson make.

The capital stock of the Dennison (Minn.) Co-operative Elevator Company has been increased to \$75,000.

A 1,500-pound scale has been installed in the elevator of the Moorhead (Minn.) Farmers Elevator Company.

The Equity Elevator at Madelia, Minn., has been overhauled and numerous improvements have been made on it.

The Kremer Elevator at Minnesota Lake, Minn., is being torn down. It will be removed to Waldorf and rebuilt there.

The Stephen (Minn.) Farmers Co-operative Elevator Company is building a new office and engine room at its elevator.

The capital stock of the Globe Elevator Company of Minneapolis, Minn., has been increased from \$900,000 to \$1,300,000.

To deal in grain, fuel, etc., the Campbell Grain Company has been incorporated at Campbell, Minn. Capital stock is \$15,000.

The J. E. Danielson Elevator at Red Wing, Minn., has been purchased by W. H. Befort of Red Wing. The plant will be repaired.

The grain elevator at Alpha, Minn., formerly owned by J. C. Byrnes of Wells, has been purchased by Evers & Anderson.

The Crown Elevator at Sacred Heart, Minn., has been purchased by A. A. Mostue, formerly manager of the Farmers Elevator there.

The Borgerding Elevator at West Union, Minn., has been purchased by O. M. Stensland. Mr. Stensland will wreck the building.

The Farmers Company operating elevators at Sturgeon Bay, Wis., and a feed store and stations at Rio Creek, Bellevue, Seymour, Manawa and Green Bay, Wis., has sold out to the recently or-

ganized Stram & Keys, Inc., of Green Bay, Wis. The company will establish a large elevator and store at Green Bay.

W. D. Gregory and W. K. Powers have chartered the Powers Elevator Company of Minneapolis, Minn. Its capital stock is \$8,000.

The Farmers Elevator Company of Wolverton, Minn., is moving its old elevator adjacent to the new one and will use it as an annex.

A store building at Washburn, Wis., has been leased by the Bayfield County Farmers Association. It will carry a line of grain, feed, hay and flour.

A two-story warehouse 40x90 feet is to be built at Hurley, Wis., for the Vezzetti & Galabina Company, wholesale dealers in grain, feed, hay, flour, produce, etc.

Capitalized at \$20,000, the Dent Elevator Company has been incorporated at Dent, Minn. Chas. Stender, Albert Benke and Henry Maddar are interested.

The plant of the Cargill Elevator Company at Howard Lake, Minn., has been purchased by the recently organized Farmers Co-operative Elevator Company.

Farmers around Sedan, Minn., have organized a co-operative elevator company there and will either purchase the elevator located there or build a new one.

The Farmers Elevator Company of Stewartville, Minn., is building an addition to its elevator. It will be of reinforced concrete with motor driven conveyor belts.

The Jordan Electric Light & Heating Company has purchased for the consideration of \$3,000 the grain elevator property at Jordan, Minn., from Schmitt & Miller.

The elevator interest of A. G. Swan at Alden, Minn., has been disposed of by him to the Speltz Grain & Coal Company. Carl Nelson has been retained as manager.

The Farmers Elevator Association was recently organized at Waconia, Minn. Henry Bahr is president, A. O. Anderson vice-president, H. A. Stahlke secretary-treasurer.

To deal in grain, feed, hay, flour, produce, etc., the Farmers Produce Company has been incorporated at Randall, Wis. Fred Jahns, A. C. Stoxen and Wm. Kline are interested.

Max, Louis and Fred Weksler have incorporated the Quality Products Company of Marinette, Wis., capitalized at \$10,000. The company will buy and sell grain, hay, seeds and produce.

The old coal sheds and the Monarch Elevator at Renville, Minn., are being torn down by the Farmers Elevator Company preparatory to building modern sheds for handling side lines.

The Wylie Co-operative Elevator Company has been incorporated at Wylie, Minn., by C. Kruse, G. Naplin, J. O. Swanson and others. The capital stock of the new corporation is \$25,000.

The Armour Grain Company's elevator at Ripon, Wis., has been purchased by the Ripon Handle & Specialty Company. The company will either raze the building or remodel it to suit its needs.

The interests of the Neils Elevator Company at Royalton, Minn., have been sold to Val Warnecke of New York Mills. The elevator is now conducted under the name of the Independent Elevator.

The C. H. Bergman Company, which has been conducting a grain, feed and coal business in Eau Claire, Wis., has discontinued the grain and feed end and will hereafter conduct a coal business exclusively.

For the purpose of conducting a grain elevator business the farmers around Plummer, Minn., have organized a company and will either build or buy an elevator establishment. F. J. Eukel is president of the firm.

F. J. Brooker, W. G. Brown, Henry Ledebur and others have filed articles of incorporation as the Fairmont Farmers Co-operative Elevator Company and will operate at Fairmont, Minn. The company is capitalized at \$100,000.

The old mill property at Cobden, Minn., has been purchased by the Cobden Grain Company from J. P. E. Bertrand. The new owners will add a number of new bins and make other improvements and will operate the entire plant.

The Farmers Co-operative Elevator Company has been incorporated at Tracy, Minn. H. C. Lau, I. Buzzel and W. Moreman are interested. Its capital stock is \$50,000. This company is successor to the Farmers Elevator Company which dissolved.

To buy and sell grain, feed, flour, farm produce, etc., at Stratford, Wis., the Stratford Co-operative Shipping Association has been incorporated, capitalized at \$25,000. John Spindler, Philip Hein, Wm. Dent, John Vergenz and A. E. Jones are interested.

The Marquette Elevator Company was recently organized at Minneapolis, Minn., by well known grain men of that market and has purchased the Stewart Elevator of the Banner Grain Company. The elevator is a modern establishment and has a

capacity of 600,000 bushels. W. D. Gregory is president, C. A. Eaton vice-president, W. A. Gregory secretary, L. S. Gregory assistant secretary, and W. J. Russell treasurer.

The Farmers Co-operative Association has been organized at Belview, Minn., to succeed the Farmers Grain & Fuel Company in business there. The directors of the new company are nearly the same as those who were interested in the company which they succeed.

Farmers around Tigerton, Wis., have organized the Tigerton Equity Exchange for the purpose of taking over the business of the Tigerton Grain Elevator, which is now being conducted under the ownership of H. P. Meyer. William Selle is president of the firm.

The elevator, warehouse and mill at Park Rapids, Minn., now owned by L. H. Rice, has been purchased by the Farmers Produce Exchange. It has also purchased the elevator of the Park Rapids Fuel & Supply Company. The machinery in the mill was not included in the deal.

The Farmers Elevator Company of Lake Park, Minn., have reorganized as a co-operative company, capitalized at \$25,000. They will continue operating the grain elevator there. H. O. Bjorge is president; Martin J. Norby, secretary; Chas. Foss, treasurer; and John Olson, manager and buyer.

Negotiations were recently closed whereby the elevator of the Meyers Grain & Coal Company at Stockton, Minn., has become the property of the recently organized Stockton Farmers Elevator Company. The elevator has capacity of 12,000 bushels and has been operated by the Meyers company for two years past.

MISSOURI, KANSAS AND NEBRASKA

C. S. Seldomridge's elevator at Holdrege, Neb., has been completed.

The A. J. Poor Grain Company succeeds H. W. Burke at Morland, Kan.

The Farmers Exchange is to build a \$15,000 elevator at Harwood, Mo.

The Morris Lumber Company is building a 10,000-bushel elevator at Reading, Kan.

The Farm Club has purchased the grain business of J. M. Hedgecock at Hurdland, Mo.

A grain elevator of 12,000 bushels' capacity is to be built at Atwood, Kan., for Wm. Correll.

A modern 40,000-bushel elevator is to be built at Marysville, Mo., for the farmers around there.

The Gibson Co-operative Company has been incorporated at Clinton, Mo., capitalized at \$30,000.

The elevator of Hedge-Brown & Co., at Whiting, Kan., has been purchased by the Farmers Union.

The Rould Bros.' elevator at Campbell, Neb., has been purchased by the Farmers Elevator Company.

C. F. Owen is succeeded at Lees Summit, Mo., by the Lees Summit Elevator & Grain Company.

The capital stock of the St. John (Kan.) Farmers Grain & Mercantile Company has been increased to \$4,000.

The City Mill & Elevator located at Madison, Kan., is being enlarged and remodeled at a cost of \$7,000.

The Producers Grain Company No. 109 has been incorporated at Foristell, Mo. Its capital stock is \$6,000.

The capital stock of the Farmers Elevator Company at Scott City, Kan., has been increased by \$10,000.

The Farmers Union Elevator Company has been incorporated at Lawrence, Neb. Its capital is \$100,000.

Farmers around Plymouth, Kan., have erected and will operate a grain elevator of 12,000 bushels capacity.

J. F. Herries has sold his grain, flour, poultry business at Pawnee City, Neb., to the Brown Grain Company.

G. J. Johnston recently bought the elevator and grain business at Ashland, Kan., from the Ashland Grain Company.

C. K. Anderson is succeeded at Henry, Neb., by Anderson & Wood. They will continue the grain and coal business.

A new elevator is under course of construction at Selden, Kan., for the recently organized Selden Elevator Company.

The F. H. Biesenmeyer Elevator at Mitchell, Kan., has been purchased by the Derby Grain Company of Topeka, Kan.

Articles of incorporation have been filed by the Farmers Co-operative Elevator Company which will operate at Joplin, Mo.

H. F. John F. and Arthur G. Grosshaus have incorporated the J. F. Grosshaus Grain & Lumber Company at York, Neb.

The G. W. Helm Grain Company's elevators and holdings, together with its office equipment, has been purchased by Geo. E. Heald. He will conduct

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the Helm business. Mr. Heald has for several years operated an elevator at Sedgwick, Kan. The Helm company's main office is at St. Joseph, Mo.

A grain elevator is to be constructed at Jefferson City, Mo. The Cole County Farm Bureau is backing this proposition.

A charter has been granted the Producers Grain Company, Elevator No. 7, of El Dorado Springs, Mo. Its capital stock is \$15,000.

The elevator at Arapahoe, Neb., formerly conducted by H. H. Zieme, has been purchased by the Farmers Co-operative Union.

The Inter-Ocean Mills have started the construction of 14 steel grain tanks at its plant at Topeka, Kan. They will cost \$10,000.

A grain elevator and warehouse costing about \$350,000 is to be erected at St. Louis, Mo., by the Tiedemann Elevator Company.

Chas. Park has leased the elevator at Miltonvale, Kan., owned by J. W. Fury. He will operate as the C. E. Park Grain Company.

The capacity of the elevator of the Consumers Mill & Elevator Company at Belle Plaine, Kan., has been increased 12,000 bushels.

The Farmers Co-operative Company has been organized at Pearson (New Franklin p. o.), Mo. Capital stock of the firm is \$12,500.

Articles of incorporation were filed for the Farmers Elevator Co-operative Corporation at Scott City, Kan. Its capital stock is \$10,000.

The name of the Farmers & Merchants Elevator Company of Beatrice, Neb., has been changed to that of the Farmers Co-operative Company.

The interior of the plant at Mountainview, Mo., owned by Buck Meader & Son, has been remodeled. They have moved their feed business into it.

The 24,000-bushel elevator of the Lindsborg Milling & Elevator Company at Hilton (McPherson p. o.), Kan., has been rebuilt and remodeled.

An elevator at Alden, Kan., has been purchased by the Consolidated Flour Mills Company. This purchase gives the company 22 grain elevators.

H. F. May, A. Harper, W. Meyer and others have incorporated the Farmers Co-operative Elevator Company of Bennet, Neb. Its capital stock is \$50,000.

L. G. Lowe, F. L. Whitlock and J. T. McIntosh have incorporated the Nebraska-Colorado Grain Company at Sidney, Neb. Its capital stock is \$100,000.

Geo. W. Helm, O. Mitchell and Frank W. Gilmore have incorporated the Agency Elevator & Grain Company of Agency, Mo. Its capital stock is \$15,000.

An organization of farmers has purchased the grain elevator at Virginia, Neb., which has been owned for some time by A. M. Darwin and Gus Erickson.

Arthur J. Mann, Howard H. Mann and Fred L. Cook have incorporated the Mann Grain Company and will operate at Clinton, Mo. The firm is capitalized at \$30,000.

Mr. Hentzen has bought out the interest of his partners in the Imig-Graff & Hentzen Elevator at Seward, Neb., and will conduct it hereafter as the Hentzen Elevator.

The grain elevators at Manning, Pendennis, and Healy, Kan., have been purchased from the Larabee Flour Mills Corporation by the Salina Produce Company of Salina, Kan.

W. H. Kelly's business, including elevator and corn mill at Edgerton, Kan., has been purchased by the Farmers Union Elevator & Co-operative Business Association.

J. A. Snyder has sold his 10,000-bushel elevator at Pennsboro, Mo., to the Holland-O'Neal Company. It is also building an elevator at Mt. Vernon, together with a fireproof mill.

Plans are being considered for the erection of a grain elevator of 25,000 bushels' capacity for the Garden City Company of Garden City, Kan. J. Stuart is vice-president of the firm.

The J. T. Jamison Elevator at South Coffeyville, Kan., has been purchased by the Nowata County Farmers Co-operative Association. It also operates elevators at Watova and Nowata.

W. S. Paul, C. K. Paul and C. C. Wilmer have filed articles of incorporation at Pauline, Kan., as the Pauline Farmers Co-operative Elevator & Supply Association. Its capital stock is \$25,000.

The Meadows & Bridgmon Elevator at Maitland, Mo., has been purchased by the Nodaway Valley Farmers Elevator Company. The farmers company is building a new warehouse. A. B. Crider is manager.

A grain elevator of 80,000 bushels' capacity; an alfalfa and molasses feed mill of 500 barrels and flour mill of 500 barrels' capacity is to be erected at Manhattan, Kan., for the Liberty Milling & Ice Company.

The Farmers & Merchants Elevator Company of Filley, Neb., has changed its name to that of the

Farmers Co-operative Company of Filley. W. A. Wickersham is president and Carl Sorenson secretary of the firm.

The elevator site at Ashland, Kan., on which the Street Grain Company had started the erection of a grain elevator, has been purchased by the Wallingford Bros. They will enlarge the elevator to 20,000 bushels' capacity.

The Wisley Grain Company's office and engine room at Winnebago, Neb., is to be rebuilt. A 30,000-bushel storage plant is also to be added, and a Fairbanks 10-horsepower Type "Z" Engine and

10-ton Howe Scale will be installed, ready to handle the new crop.

H. S. Thompson and O. G. Hinshaw have leased the elevator at Sylvia, Kan., which they bought from the Kansas City Grain Company, to C. G. Hopkins. The storage capacity of the plant is to be increased from 5,000 to 10,000 bushels.

The half interest of B. C. Ragan in the elevator company of B. C. Ragan & Co., at Valley Falls, Kan., has been purchased by Chas. Deihl. He, together with W. A. Blake, will handle grain and coal as the Valley Falls Elevator Company.

OBITUARY

AKIN.—Thos. Akin passed away at St. Louis, Mo., recently. Mr. Akin was a retired grain commission man and was one of the oldest members of the St. Louis Merchants' Exchange.

BARNARD.—Frank Gilbert Barnard died at Oakland, Calif. Mr. Barnard had been a member of the Chicago Board of Trade for more than 40 years but two years ago retired from active business.

BRYANT.—Aged 48 years, John H. Bryant died at Bryan, Texas. He was for many years in the grain business. His widow survives him.

HOLT.—Heart trouble caused the death of B. J. Holt, manager of the Farmers Elevator at Hanna City, Ill. He was 65 years old.

KARGER.—Solomon Karger died on July 9 at his home in Milwaukee, Wis. Mr. Karger was a member of Karger Bros., commission merchants. He had been a member of the Chamber of Commerce since 1902.

M'CARTY.—Thomas E. McCarty died from pneumonia at Brooklyn, N. Y., on July 12. He was a pioneer grain merchant and the oldest active member of the New York Produce Exchange.

SCOTTEN.—Cancer, after a long illness, caused the death of S. C. Scotten on August 5 at Chicago. Mr. Scotten at one time was one of the largest grain

operators in the country. He entered the grain and commission business in 1878 at Chicago. At the time of his death he was connected with Scotten & Snyder. Further details are to be found concerning Mr. Scotten's career in another portion of this issue.

PENCE.—F. M. Pence died at Pence, Ind., recently, leaving a widow and one son. Mr. Pence was well known among grain dealers and had operated several grain elevators in his time.

SEARLE.—R. W. Searle died on July 12 at Buffalo, N. Y., from pneumonia. He was a leading grain dealer at Buffalo for some years. His widow, one son and two daughters survive him.

WALTON.—Samuel Barnard Walton died at his home in Chicago, Ill., at the age of 80 years. Mr. Walton had for 40 years been in the grain business at Clinton, Ill. He moved to Chicago 20 years ago and retired from active business. His widow and one daughter survive him.

WILSON.—James C. Wilson met with his death while in bathing at Brunswick, Ga. Mr. Wilson was associated with an Atlanta, Ga., grain company.

WOOLERY.—John J. Woolery died at Fort Worth, Texas. He was president of the Fort Worth Milling Company and a prominent grain man of Texas. He had been in the grain and milling business for 40 years.

FIRES—CASUALTIES

Trezevant, Tenn.—Fire damaged the Mullin & Leach Feed Store.

Plankinton, S. D.—The Schroeder Elevator was damaged by fire not long ago.

Freeport, Minn.—Moritz Hoeschen's elevator here was destroyed by fire on July 31.

Kyle, Ohio.—Fire destroyed the elevator of C. M. Elliott. Loss amounted to \$10,000.

Dighton, Kan.—The elevator of the Walnut Creek Milling Company of Great Bend, at this point, was burned.

Voss, N. D.—Together with 1,700 bushels grain the Voss Grain & Elevator Company lost its elevator by fire.

Allison, Iowa.—On July 19 lightning struck and set fire to the elevator of the Farmers Co-operative Elevator Company.

Georgetown, Texas.—The Georgetown Grain Company's warehouse was burned recently. Loss amounted to \$2,500.

Manitowoc, Wis.—The building occupied by Ed. Brey & Sons, dealers in feed and flour, was damaged by fire. Loss \$2,000.

Venlo (Anselm p. o.), N. D.—Fire destroyed the Farmers Elevator here with a loss of \$10,000. Insurance amounted to \$3,500.

Bondville, Ill.—Fire destroyed the grain elevator of M. A. Kirk & Co. The plant contained no grain. Damage amounted to \$20,000.

Ortonville, Minn.—The stockholders of the Farmers Elevator Company suffered a loss of \$10,000 when its elevator was destroyed by fire.

Savage, Mont.—On July 16 fire completely destroyed the Powers Elevator together with coal sheds and a considerable amount of grain.

Shoal Lake, Man.—On August 7 the Arnold Elevator was completely destroyed by fire. There was no grain in the plant at the time. The elevator had a capacity of around 20,000 bushels. The building was partially covered by insurance.

Greenville, S. C.—Fire originating from defective wiring broke out in the plant of the Smith Grain Company, formerly known as the Mountain City Milling Company, on July 9, and caused damages

of several thousand dollars. The warehouses and stock escaped the fire. The mill machinery was repaired at once.

Whitewright, Texas.—Fire destroyed the Kimbell Elevator together with considerable corn. The loss of \$12,500 is partially covered by insurance.

Winthrop, Minn.—Fire destroyed the Malmquist Elevator together with 300 bushels wheat, 400 bushels rye, 1,000 bushels corn and 700 bushels oats.

Oakville, Iowa.—D. E. Strawhacker's elevator at Oakville, was burned. The plant was valued at \$10,000. Only a small quantity of grain was in the plant.

Kirkwood, Mo.—The brick warehouse of the Prough Hay & Grain Company was damaged by fire. The damage to building and stock of grain amounted to \$25,000.

Metcalf (mail Caldwell), Kan.—Lightning struck the Metcalf elevator, owned by the Caldwell Milling Company. About 8,000 bushels of grain were in the plant at the time.

Detroit, Mich.—H. M. Hobart & Son's elevator and mill was destroyed by fire with a loss of \$100,000. They will not rebuild the plant but will continue operating a grain business.

San Antonio, Texas.—The warehouse and elevator of the Southern Feed & Grain Company was recently destroyed by fire, together with the contents. The loss amounted to \$30,500.

Attica, Ind.—The Davis Bros. of Judyville, Ind., lost their elevator by fire on August 5. The loss amounted to \$20,000; partly covered by insurance. A large quantity of corn was also burned.

Estlin, Sask.—Lightning struck and set fire to the elevator at Security Elevator Company on July 20. Damage totaled \$30,000. The plant did not contain much grain at the time of the fire.

Newman, Ill.—The elevator of the Farmers Elevator Company was burned on August 6, with loss of \$100,000. The origin of the fire is unknown. The plant was full of wheat at the time of the fire.

Canby, Minn.—Fire on July 23 destroyed the Van Dusen Mill and Elevator here. Defective elec-

tric wiring is believed to have caused the blaze. The buildings were filled with grain at the time of the fire and this is also a total loss.

Wales, N. D.—The Northwestern Elevator was destroyed by fire of incendiary origin. A week after this fire the Farmers Elevator met with a similar fate. Fires are believed to have been incendiary.

Milliken, Colo.—The Farmers Union Mill & Elevator Company's plant, together with considerable quantity of grain, was burned. Loss was \$150,000; two-thirds of this is covered by insurance. Origin of the fire is unknown.

TO INSTALL TRAPP DUMPING SYSTEMS

The following firms have purchased for installation, Trapp Dumping Systems, manufactured by the Trapp-Gohr-Donovan Company of Omaha, Neb.:

DeWerd Milling Company, Milbank, S. D.; Hoese & Leuth Grain Company, Roswell and Fedora, S. D.; Garvey & Dunlap, Bridgeport, Neb.; White City Grain Company, White City, Kan.; Doddridge Grain Company, Council Grove, Kan.; Overbrook Grain Company, Overbrook, Kan.; Chilcoat & Moser, Otis, Colo.; Eden Elevator, Eden, Idaho; O. G. Bradshaw, Kimball, S. D.; Carpenter & West, Neosha Rapids, Kan.; Farmers Grain, Live Stock & Supply Company, Stratton, Neb.; Savannah Grain Company, Savannah, Mo.; A. H. Betts, Rock Valley, Iowa; Nelson Grain Company, Custer City, Okla.; Wheeler Grain Company, Custer City, Okla.; G. S. Livermore, Swea City, Iowa; Elsie Equity Mercantile Exchange Elsie, Neb.; G. S. Livermore, Fairmont, Minn.; Baker Farmers Company, Baker, Ill.; Farmers Co-operative Company, Bruce, S. D.; Bullard Lumber Company, Culbertson, Neb.; Sun Grain & Export Company, Bessie, and Navina, Okla.; M. Young & Co., Winterset, Iowa; F. Schroeder, Mountain Lake, Minn.; Atlas Elevator Company, Lester, Iowa, and Ruthon, Minn.; Farmers Elevator Company, Jonesburg, Mo.; P. A. Johnston, Ashland, Kan.; A. J. Elevator Company, Robinson, Kan.; Benkelman Equity Exchange, Benkelman, Neb.; Co-operative Elevator Company, Windom, Minn.; Dial & Clark, Shamrock, Texas; Farmers Grain & Elevator Company, Groom, Texas; L. S. Wait, Boyden, Iowa; C. E. Wood Company, Genesee, Idaho; Nezperce Roller Mills, Lewiston, Idaho; Rock Valley Grain Company, Rock Valley, Iowa; Updike Grain Company, Missouri Valley, Iowa; Farmers Elevator Company, Alleman, Iowa; E. P. Allison, Lakefield, Minn.; Westensee Grain Company, Lakefield, Minn.; Farmers Co-operative Elevator Company, Parshall, N. D.; Scott-George Grain Company, Agate, Colo.; Atwood Equity Exchange, Atwood, Kan.; Farmers Co-operative Association, Chugwater, Wyo.; D. E. Bondurant, Ness City, Kan.; Farmers Elevator Company, Bridgewater, S. D.; A. H. Betts, Lester, Iowa; Farmers Elevator Company, Hinton, Iowa; E. T. Denton, Denton, Kan.; C. W. Gillam, Windom, Minn.; O. C. Lande, Stornden, Minn.; Vona Equity Co-operative Association, Vona, Colo.; Garden City Co-operative Equity Exch., Garden City, Kan.; Dawson Grain Company, Neola, and Underwood, Iowa; Farmers Elevator Company, Merrill, Iowa; St. Francis Equity Exchange, St. Francis, Kan.; El Reno Mill & Elevator Company, El Reno, Okla.; Farmers Elevator Company, Hornick, Iowa; Orleans Equity Co-operative Association, Orleans, Neb.; Gregg & Beemon, Lake Park, Iowa; Quaker Oats Company, Morris, Ill.; Farmers Elevator Company, Fonda, Iowa; Phelps Grain Company, Elbert, Colo.; Farmers' Equity Exchange, Arapahoe, Neb.; Mountain Lake Co-operative Elevator Company, Mountain Lake, Minn.; Eckley Farmers Mercantile Company, Eckley, Colo.; Farmers Grain & Milling Company, Powell, Wyo.

GLOBE DUMP SALES

Recent sales of Globe Dumps, for future installation, made by the Globe Machinery & Supply Company of Des Moines, Iowa, are as follows:

Akron Milling Company, Sioux City, Iowa; R. H. Nolan, Hawarden, Iowa; Plymouth Milling Company, Seney, Iowa; Plymouth Milling Company, Remsen, Iowa; Hoese Grain Company, Brunsville, Iowa; Hoese Grain Company, Merrill, Iowa; Bomberger Bros., Gowrie, Iowa; J. B. Kloppenberg, Hartley, Iowa; J. J. Fiala, Solon, Iowa; Perry Grain Company, Perry, Iowa; B. F. Vorhies, Liscomb, Iowa; Farmers Elevator Company, Traer, Iowa; Roskoff & Kopel, Marshalltown, Iowa; Harrison & Son, Williamsburg, Iowa; Farmers Exchange, Lake Park, Iowa; H. B. Lee Flour Mills, Oakley, Iowa; E. W. Miller & Company, Casey, Iowa; Gilmore Grain & Elevator Company, Gilmore City, Iowa; Charlton & Larson, Rolfe, Iowa; Farmers Elevator Company, Albion, Iowa; Chas. Belz & Son, Conrad, Iowa; R. S. Whitney, Peterson, Iowa; E. W. Miller & Co., Casey, Iowa; Rands Farmers Grain Company, Rands, Iowa; Hunting Elevator Company, Chatsworth, Iowa; Stokely Grain Company, Brooklyn, Iowa; Stokely Grain Company, Des Moines, Iowa; Brenton McColl Company, Dana, Iowa; Larchwood Co-operative Elevator Company, Larchwood, Iowa; Ismert-Hincke Milling Company, To-

peka, Kan.; Federal Engineering Company, Selden, Kan.; E. H. Fisher, Elkhart, Kan.; C. S. Bartholomew, Colby, Kan.; Wilson Flour Mills, Wilson, Kan.; Central Coal & Grain Company, Council Grove, Kan.; The Wheatland Elevator Company, Hays, Kan.; Toltz King, Day Company, Minneapolis, Minn.; W. J. Jennison Company, Minneapolis, Minn.; Jennison Milling Company, Minneapolis, Minn.; Northwestern Elevator Company, Jasper, Minn.; National Elevator Company, Donnelly, Minn.; Balaton Farmers Elevator Company, Balaton, Minn.; Northwestern Elevator Company, Garrettson, S. D.; Farmers Elevator Company, Ray-

mond, S. D.; Farmers Elevator Company, Wagner, S. D.; S. J. Simonson, Timber Lake, S. D.; Farmers Mill & Elevator Company, Forgan, Okla.; Farmers Elevator Company, Scooby, Mont.; Graham Mill & Elevator Company, Seymour, Graham, and Olney, Texas; Great Western Mill & Elevator Company, Hereford, Texas; M. R. Russell, Arriba, Colo.; Sharp Elevator Company, Thomasboro, Ill.; C. B. De Long, Fithian, Ill.; F. Smith & Sons, Monmouth, Ill.; Caldwell Equity, Caldwell, Idaho; Indianola Equity Exchange, Micok, Neb.; Occident Elevator Company, Hazen, N. D.; Blum & Kroske, Parshall, and Makoti, N. D.

HAY, STRAW AND FEED

NEW TIMOTHY HIGHER

In their market letter of August 13, Albert Miller & Co. say: New timothy hay shows a further advance, No. 1 selling at \$40 per ton, No. 2 \$37. Most of the arrivals now are new hay and all arriving in excellent condition. New prairie showed a slight decline in price due to larger receipts and a lessening of demand. A further advance in new timothy, and that is looked for, will no doubt help buying of prairie.

DRIED BEET PULP SITUATION

Evidence of the growing favor in which dried beet pulp is held by stockmen is the fact that the domestic supply is being rapidly exhausted and additional supplies from Europe are being contracted for. It is asserted that there is no scarcity in the Northeast Territory, where large stocks have accumulated on account of car shortage and like difficulties. In the South and Southeast, however, the demand is great, in spite of the fact that stocks of cottonseed meal are comparatively large.

ALFALFA LEADS IN TAME HAY ACREAGE

In a recent statement made by the Missouri Co-operative Reporting Service the following figures were given in regard to the tame hay acreage in the country and how it was divided between the different crops:

Grain cut green for hay, 8 per cent; cowpea, soybean and other peas cut for hay, 9 per cent; clover, 12 per cent; timothy, 16 per cent; clover and timothy, 18 per cent; alfalfa, 21 per cent; all other tame hay, 16 per cent.

HAY RECEIPTS LIGHT

"The receipts of hay last week were light and were very light again this morning," write Toberman, Mackey & Co., of St. Louis, on August 9. "The demand here is increasing and with the continued light receipts we expect to see an advance in prices. In fact the market is about \$1 per ton higher today than it was the latter part of last week. The shipping demand is also improved to some extent and it is our opinion that this market is going to remain good for some time and we would advise quick shipment of whatever you have on hand and can load without delay.

"Prairie hay in good demand. Offerings light, Choice alfalfa in good strong demand, medium and low grades in fair demand. Clover wanted. Straw steady."

REPORTS ON VALUE OF SAWDUST FEED ARE PREMATURE

G. B. Morrison of the Wisconsin State College of Agriculture has come out with a statement which should minimize the previous sensational reports on the feed value of sawdust which have been going the rounds. Mr. Morrison says:

"Sensational reports circulating to the effect that the saving in feed will be enormous and that the use of sawdust will revolutionize the dairy industry are false and misleading. No one can yet state whether or not it will prove of practical application. Sawdust as a possible feed for stock has been considered favorably for many years, but it remained for the Forest Products laboratory and the Wisconsin College of Agriculture to conduct the first trials."

The feeding experiments in which chemically treated soft-wood sawdust was fed were under the direction of F. B. Morrison of the College of Agriculture. The sawdust was prepared by means of new processes perfected by E. C. Sherrard of the Forest Products laboratory. The amount of treated sawdust which could be prepared under laboratory conditions was limited so that only a short feeding test was made. More extensive trials will be necessary before definite conclusions can be made as to the feeding value of the hydrolized sawdust.

"Three cows were fed for three periods of four weeks each. In the first and third feeding periods," says Mr. Morrison, "the cows were given an excel-

lent ration consisting of alfalfa hay, corn silage and a concentrate mixture consisting of 55 parts of ground barley, 30 parts of wheat bran, and 15 parts of linseed meal. In the second feeding period the hydrolized or treated sawdust was substituted for a part of the barley in the mixture. Two pounds of sawdust were used in place of one of barley. The grain mixture then consisted of 30 parts of sawdust, 40 parts of ground barley, 30 parts of wheat bran and 15 parts of linseed meal. The cows kept up their production through this period and maintained their weight even better than on the ration fed during the first and third periods.

"While it is unsafe to draw definite conclusions from such a short test, it would seem that cattle may be fed a limited amount of hydrolized sawdust. As a feed it contains only a negligible amount of protein and for that reason cannot be compared with barley. In both of the rations used in the trials the protein was furnished by other feeds. Before attempting the manufacture of this new feed on a commercial scale it will be necessary to carry on much longer feeding tests to find out whether the sawdust has any injurious effects when its use is long continued."

FEATURES OF THE MISSOURI FEED LAW

The Missouri Feed Registration Law has been widely heralded as a "model" statute. We are indebted to a contemporary for the following resume of its main features:

Mills and distributors desiring to register feeds are not required to send samples to the feed law registering authority, except when specially requested to do so.

The Missouri standards of "Definitions" of live stock and poultry feeds are those adopted by the "Association of Feed Control Officials of the United States."

Registration is "permanent."

No fees charged and no tonnage tax collected.

Each ingredient must be specifically named. "Middlings," "screenings," "shorts," etc., is not specific and will not be accepted as such.

"Screenings," of course, usually are "wheat screenings," but the kind of screenings must be so stated definitely. "Mill-run screenings" is not sufficient.

"Miscellaneous seeds" is too indefinite.

"Humus" will be rejected if named as an ingredient. "Baked peat or humus" is disliked, but will not be refused finally.

Applicant pays for his own analysis of feed before registering, having same done by any standard agricultural commercial chemist or at the Missouri State Agricultural Experiment Station, Columbia, Mo.

Label may be either printed on tag, or on bag, or package—furnished by and printed at the applicant's expense.

"Corn Chop" must be registered, but "Cornmeal" is not covered.

Medicated livestock and poultry feeds are not registered under the law. The administrative authority for the law is the Missouri State Board of Agriculture at Jefferson City. Buyers who have feeds that are objectionable can obtain from the Board, on application, official printed instructions for taking legal samples for analysis, as an improperly taken sample may work an injustice and lead to expensive and unprofitable legal action.

ANOTHER NEW GRAIN SORGHUM

The new grain sorghum known as "Sunrise Kafir," which has been attracting much attention in the Southwest, was developed from a single head selected at the Amarillo, Texas, field station in 1916. It is believed to have been the result of a stray hybridization.

"Sunrise" has a sweet, slender stalk, with rather large heads, which latter characteristic causes the plant to fall somewhat if heavy storms occur after the forming period. Outside of this one shortcoming "Sunrise" has many desirable features. Its

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FIELD SEEDS

KENTUCKY BLUEGRASS CROP

The production of Kentucky bluegrass seed in Kentucky is estimated to be 450,000 bushels based on reports received by the Bureau of Markets. This indicates that the acreage is 5 to 10 per cent greater and the yield per acre 25 per cent greater than last year.

A preliminary survey made the first part of June indicated that the acreage to be stripped this year would be slightly less than last year. But growing conditions just prior to the stripping period were ideal as was the weather during the stripping period and this combination of conditions induced growers to strip meadows which they had not intended to save for seed.

Stripping was practically completed by June 20 and curing of the stripped seed has been progressing under the most favorable weather conditions. With the heavy well developed seed obtaining a crop of very good color and quality seems assured.

"FREE SEEDS TO GO MARCHING ON"

Under the above headline, *Successful Farming*, Secretary Meredith's paper says:

"After a stubborn pitched battle the Senate was compelled to yield to the House on the free seed item in the annual agricultural bill. The House is to retain the privilege of distributing valuable seeds, at a cost of \$1,000,000 to the Treasury of the United States. On the item the roll call in the House stood 169 to 28. There was nothing for the Senate but to yield unless it was prepared to interfere with the work of the Department of Agriculture through delay in passing the appropriation bill. So these familiar packages of useless and tried out seeds will go to every village and community in the land to show the uninitiated the interest taken by members of Congress in their constituents. But this is an election year and one really ought not to expect members of Congress to throw away any political weapons—although the one in question is thoroughly discredited."

CRIMSON CLOVER SEED HARVEST VERY SMALL

The total quantity of crimson clover seed harvested in the United States this year is only about 350,000 pounds of hulled seed, or 15 per cent of the record quantity harvested last year, according to reports received from growers and shippers by the Bureau of Markets. This does not include the approximately 125,000 pounds of seed in the chaff harvested in North and South Carolina, which is slightly more than that harvested in 1919.

The heavy imports of crimson clover seed during the past 12 months and the low price at which dealers have been able to sell it are largely responsible for the farmers plowing under much of their crimson clover instead of allowing it to mature seed. The yield per acre on the small acreage harvested was low, ranging from 120 to 300 pounds. On the whole the quality is only fair, much of it being discolored and unevenly matured, according to *The Market Reporter*, the official organ of the Bureau of Markets.

SEEDS SALES FOR 1920

Reports received by the Bureau of Markets from retail seed dealers throughout the United States show that the sale of field seeds this year compare favorably with those of 1919. However they are somewhat below normal.

Of the commercially more important seeds, red and alsike clover sales show the greatest reduction, while alfalfa sales were practically equal to those of 1919, and in most of the large consuming states the sales of timothy were greater than in 1919 and nearly normal, as may be seen by referring to the accompanying table of sales by states.

An appreciable increase is noted in the sales of sweet clover except in the West Central division. Very little difference is noted between sales this year and last year of Kentucky bluegrass, orchard grass, and redtop, as shown in the accompanying table of retail sales by geographical divisions. Sales of cowpeas were uniformly smaller in every state, doubtless because of the abnormally high price and short supply, while soy beans sales were from 2 to 30 per cent larger in the Eastern, Southern, and Middle Western States. A general increase over 1919 and normal is noted in the quantity of millets, sorghos, and rape seed sold.

Seed corn sales increased materially in the Southeastern, North Central, West Central, and North Pacific divisions and are reported equal to 1919 and normal in other sections. Outstanding among the grains is the 10 to 15 per cent reduction from 1919 and normal in the sales of seed wheat. Seed of the

other grains seems to have met with a more ready sale than in 1919 but less than normal in most sections.

NEW SEED TRADEMARKS

The following new seeds trademarks were published in recent issues of the *Official Gazette* issued by the U. S. Patent Office: "Excelsior" timothy, clover, alsike, alfalfa, red-top, grass seed, lawn seed, lawn grass mixtures, pasture mixtures, seed grain and field seeds. Whitney-Eckstein Seed Company, Buffalo, N. Y. Filed December 26, 1919. Serial No. 126,501. (See cut.) "Poplarhurst" corn, wheat and oats and legumes intended for seed purposes. Serial



No. 127,180. Filed January 15, 1920. "Purity Brand" agricultural, vegetable and flower seeds. Robert Nicholson, Dallas, Texas. Serial No. 128,857. Filed February 24, 1920. See cut.

SOME SEEDS LOWER IN NEW YORK

BY C. K. TRAFTON

Irregular price changes have occurred in the New York market for field seeds during the month under review. Red clover, alfalfa, alsike and timothy declined roundly one to four cents, while redtop and bluegrass are from one-half to one cent higher. Crimson clover has again supplied about the only feature as far as actual business was concerned, other varieties being inactive as usual during mid-summer. Crimson was in unusually active demand from dealers in Virginia, North Carolina, Georgia and Tennessee. Owing to the complete failure of the crop in the latter state. Its cheapness compared with other seeds also offered an incentive to buyers. As a consequence the tone strengthened up considerably late in the month after a temporary feeling of easiness. Best qualities of imported seed are now quoted at about nine cents per pound, f. o. b. and fair average quality at eight and one-half cents.

The good demand for the old crop seed remaining was also traceable to the poor quality of new crop offerings from France. Much of the crop there was stained; some of it so badly as to be not worth saving. Hence the total production was lighter than last year's. It is offered at eight and one-half cents, c. i. f. New York for last half of August shipment. Imports during the month were much lighter, about 660 bags, including 430 from Germany. The total for the previous month was about 1,800 bags.

Red clover has been inactive with prices off two to four cents, mainly in sympathy with the weakness in Toledo. Otherwise, experienced and conservative local dealers regard the position as actually firm, having not faith in the recent decline. They argue that while the sapling clover crop has been threshed in some sections, it is too early yet for any definite reports as to the crop generally, and in the meantime, no disposition is shown to sell for future delivery. Local dealers who recently returned from the South stated that farmers did not care to sell at present levels, which they claim are below the cost of production and marketing. As the French and Italian crops are not ready, shippers in those countries are not willing to make quotations. Crop prospects in Italy are reported to be short. While they are believed to be about normal in France, it is doubted if French dealers will care to sell at present Toledo levels. The only arrival during the month was 117 bags from Germany.

In alsike the decline of three to four cents per pound has been almost wholly nominal. Indeed, it is simply quoted lower in keeping with other

varieties as there has not been enough business to actually establish a new price level in a large way. As a matter of fact, there could be no market in a large way as stocks are extremely small. It is doubtful if anyone has any really fair quantities and these are not being offered, practically all holders having determined to wait for an improvement in market conditions.

Alfalfa also has had a purely nominal decline of roughly two cents. There has been no activity, with almost no carry-over, barring some imported lots. It is too early yet to say anything about the new crop and with all hands watching for the first indications of the opening price basis anything like activity is not to be expected.

Timothy is nominally about one cent lower than a month ago, but little business has been done at the lower basis and some shrewd traders regard the decline as fictitious. In short, while the quotation is lower, there do not seem to be many sellers. It is evident that the majority of holders consider their seed worth much more. It is pointed out that present prices in Toledo are below the basis paid last year for Polish seed of much inferior quality by northern European buyers. Hence it is argued that even if prices go no lower they have already reached a plane where they will undoubtedly prove attractive to buyers in Norway, Sweden, Denmark and England, who will doubtless be glad to snap up any lots that may be available.

Those who argue that the recent big break in Toledo was fictitious claim that the bulk of the pressure in the futures market there was in the shape of short selling orders from big Chicago houses for the account of large grain operators who had made money on the short side of the grain markets. The break carried prices below the actual level ruling for the rough seed throughout the country. Because of this fact it was stated early in August that some of the largest and best-posted people were buying heavily. Attention was called to the fact that the majority of holders in other eastern markets had not reduced their prices materially.

Fancy Kentucky blue grass and fancy redtop each gained about a cent during the month, and Canadian blue grass about a half-cent. The first named has not been active as it is too early, but indications that the crop will be a short one accounted for the firmness. The redtop crop is turning out less than half of a normal yield and local authorities who returned recently from southern Illinois, stated that the volume of new crop business passing between merchants there during the past month equalled the turn-over usually made in six months. On the other hand, farmers will not offer for future shipments. Some of the carry-over supply has sold at 16 cents per pound, but few seem disposed to sell the new crop even at 17½ to 18 cents. In this market, quotations range from 18 to 19 cents. Exporters report some sales to Hamburg and it was expected that clearances would be made by the middle of August.

Orchard grass shows no change of moment, being still generally quoted at 23 to 24 cents, but the undertone is said to be rather weaker. Crop reports from Kentucky and Virginia have been fairly good in the main, while there is still some carry-over here of Danish seed.

Canary seed has advanced about one cent during the month, being quoted around six and one-half cents per pound. Spot stocks have been reduced. The arrivals of about 1,700 bags from Argentina during the previous month were well absorbed and no additional lots were received. Moreover, shippers in Argentina have raised their price to six and one-half cents c. i. f., against five and one-half a month ago.

The arrivals during the month included 4,734 bags of sunflower seed and 1,964 bags of peas from Argentina; also 125 bags of rye grass and 300 bags of hairy vetch from Denmark.

IMPORTS OF FORAGE-PLANT SEEDS FOR JULY

The following table, prepared in the Seed Laboratory of the Bureau of Plant Industry, United States Department of Agriculture, shows the amount of the various kinds of forage-plant seeds, subject to the Seed Importation Act, permitted entry into the United States during July, 1920, as compared with the corresponding month of the previous two years:

	Month of July—		
	1918 Pounds.	1919 Pounds.	1920 Pounds.
Alfalfa		1,060,400	127,400
Blue grass:			
Canada		33,600
Clover:			
Alsike	22,400	58,100	2,300
Red		778,600	90,600
Crimson	110,100	516,400	297,900
Millet:			
Broom corn		225,400	1,100
Orchard grass		67,260
Rape	151,600
Rye grass:			
English	67,400	66,100
Italian	4,560	22,400	44,000
Timothy		3,200
Vetch:			
Hairy		3,700	194,000
Spring		144,800

[Continued on Page 148]

Hay, Straw and Feed

[Continued from Page 144]

sweet stalk makes it very desirable on account of its palatability to stock. Feeders find that live stock eat all of the stalk, which is not the case with several of the dry pithy kafirs. It is further of exceptionally early maturity, from which characteristic it gains its name, and equally as drought resistant as any other sorghum. At the Woodward (Okla.) Experiment Station, Sunrise has outyielded any other sorghum, sweet or grain, in grain production, and also has yielded more forage to the acre.

CAMPAIGN AGAINST ALFALFA WEEVIL

The appearance of the alfalfa weevil in the West has brought action on the part of agricultural authorities. In Idaho the state agricultural department, backed by a state appropriation, has started an active anti-weevil campaign. Claude Wakeland, formerly assistant state entomologist of Colorado has charge of the work.

The alfalfa weevil can be controlled, on all crops of one season by one spray, applied at the proper time on the first cutting according to Mr. Wakeland. The decided results obtained by this method, he says, make this line of work most encouraging, as farmers can begin to see the effects in about five days from the time of spraying.

Mr. Wakeland's first work in Idaho will be against the alfalfa weevil, and later he will take up campaigns against other pests. He plans a trip which will take him through the weevil-infested counties, to confer with county agricultural agents in preparation for a series of demonstrations. In each central community he desires that demonstrator be chosen who will equip a spray outfit and who will follow suggestions known to be effective in controlling the alfalfa weevil. With proper co-operation in a community one spray outfit may be used to combat the weevil on several farms.

HAY LOWER IN NEW YORK

BY C. K. TRAFTON

A much weaker tendency has developed in the local hay market during the month under review, and especially on the poorer descriptions, which have dropped from \$10 to \$11 per ton, while choice No. 1 timothy in large bales has declined about \$6. Receipts have shown some enlargement, and especially by river and canal boats, which latter was largely the result of the scarcity of cars. As frequently the case, much of the hay arriving by boats has been of common or inferior quality, and as poor lots have been particularly difficult of sale prices for No. 3 or poorer descriptions have been notably weak, and as a result the breach between the top and bottom grades has again widened.

Almost no choice of No. 1 timothy has been received, and consequently the better class of buyers has found it necessary to take No. 2 instead. Because of this No. 2 has commanded a decided premium over No. 3. Indeed, it has been found so exceedingly difficult to sell the inferior lots that much irregularity has prevailed and as a general thing it has been almost impossible to obtain positively reliable quotations. Temporarily, early in the month, it was possible to sell No. 3 in a small way as high as \$41, but afterwards the offerings became so large that it became almost impossible to obtain bids over \$30.

In the main the majority of buyers have insisted that they had accumulated ample reserves, and therefore they were no longer willing to buy, excepting an occasional car of choice. This apathy among buyers was largely based on the theory that there was an ample supply of old still to come forward, and also that in the near future new would begin to move, which in their judgment would bring about a still greater reduction in prices. While the majority of conservative merchants admit that the weather and prospects have been mainly favorable for a good production, they incline to the opinion that there will be little or no further decline of importance in the near future. They contend, for one thing, that because of the big decline farmers and shippers will no longer be willing to sell freely. Furthermore, they point to the continued scarcity of cars, which will prevent free shipments from the interior. Indeed, some of them declare that already shipments are falling off and that recent advices anent invoices show a

diminution. Consequently some imagine that strictly choice new timothy will not sell for materially less than now quoted for old.

Frequently the market was depressed by the large arrivals, mainly poor stuff by canal boats, largely coming from Canada. In practically every case this hay was poor and therefore almost unsalable, excepting at decidedly low figures. Moreover there were numerous cars on track on "off roads," containing chiefly poor descriptions, which were not wanted. In numerous cases this hay was not salable, excepting at a loss. In some instances the shipper had issued drafts in excess of the value of the hay, and therefore the receiver declined to take up the drafts. As a consequence these cars were showing a loss generally of \$3 a day track demurrage.

On the other hand, receipts over regular roads or to the popular terminals were comparatively light, and consequently in some cases it paid to haul the cheaper grades on off roads into more distant territory. As usual at this season, there was practically no demand for straw, and hence prices declined.

REVISED HAY GRADES

At the recent convention of The National Hay Association held on July 14 the following changes were made in the Hay Grades of the Association:

No. 2 Clover Mixed Hay.—Shall be clover with not less than one-fourth ($\frac{1}{4}$) timothy, may be slightly over-ripe, weedy, or seedy, of fair color, sound and well baled.

No. 3 Clover Mixed Hay.—Shall be clover mixed with not less than one-fourth ($\frac{1}{4}$) timothy, may be over-ripe, of poor color, somewhat weedy and grassy, or may be stained and bitter, but must be sound and well baled.

No. 2 Clover Hay.—Shall be clover not good enough for No. 1, may be somewhat over-ripe and seedy, but must be sound and well baled.

No. 3 Clover Hay.—Shall be clover not good enough for No. 2, may be over-ripe, weedy, seedy and poor color, or weather stained and bitter, but must be sound and well baled.

No. 1 Alfalfa, Timothy and Grass-Mixed Hay.—Shall be a mixture of timothy and alfalfa in which the alfalfa shall not exceed 60 per cent, or it may contain 30 per cent native grasses in lieu of alfalfa, it shall be of bright color, free from foxtail, sound, sweet and well baled.

No. 2 Alfalfa, Timothy and Grass-Mixed Hay.—Shall be a mixture of timothy and alfalfa in which the alfalfa shall not exceed 60 per cent, or it may contain 30 per cent native grasses, in lieu of alfalfa, it shall be of fair color, free from all but a trace of foxtail, sound, sweet and well baled.

No. 1 Alfalfa Mixed Hay.—Shall be alfalfa hay containing not more than 40 per cent timothy, it shall be of fair color, free from all but a trace of foxtail, sound, sweet and well baled.

No. 2 Alfalfa Mixed Hay.—Shall be alfalfa hay containing not more than 40 per cent timothy, shall be of fair color, free from all but a trace of foxtail, sound, sweet and well baled.

No. 1 Pacific Export Hay.—Shall be a mixture of not less than 40 per cent timothy, 30 per cent alfalfa, and not to exceed 30 per cent other grasses. It may contain timothy in lieu of alfalfa, and alfalfa in lieu of other grasses, all to be of good color, sweet, and free from weeds and other dead matter. It shall be sound and well baled.

CHANGES IN TRADE RULES

The National Hay Association at its recent convention at Cincinnati on July 14, revised its Trade Rules as follows:

Rule 3. The use of the word "immediate shipment" shall mean three calendar days; "quick shipment" shall mean five calendar days; "prompt shipment" shall mean 10 calendar days. Sundays and holidays not excluded. When no time is mentioned, it is understood that "prompt shipment" will govern the contract. In event of embargo, the time of filling contract shall be extended for the period of such embargo, but not exceeding a period of 30 days. After the expiration of which period, the contract, if unfilled, shall be void at buyer's option. If called upon, shipper must furnish embargo number.

Rule 5. If any part of the hay or straw covered by contract remains unshipped it shall be the duty of the seller to advise the buyer on or before the date of expiration of time of shipment in order that the buyer may make proper arrangements for protecting his contract. Should the seller fail to notify the buyer of his inability to complete the contract, the buyer shall have the right, at his option and without further notice to the seller, to extend the time of shipment, cancel at the market price, buy in for the account of the seller any part of the hay or straw which was not shipped according to contract, or make a cash settlement based on the grade of hay the contract covers.

Rule 6. In the event of receivers or purchasers having to buy in either hay or straw for the seller's account, same shall be done within five calendar days after the expiration of the time of shipment.

Should the seller fail to notify the buyer of his inability to complete the contract, contract shall remain in force until completed, extended, or cancelled. Shipments on a time contract on which the time of shipment has expired must be accepted by the buyer, unless notice by wire or letter not to ship has been received by the seller prior to the time of shipment.

Rule 7. It is understood that when number of tons are not specified in sales of hay or straw, the carload of hay or straw shall consist of 10 tons or more, but in case of a cash settlement for non-fulfillment of contract, it shall be considered 10 tons. The seller, however, shall load cars to minimum prescribed by carriers, or the shipper to stand the under minimum freight rate to destination. In case of dispute, any difference between the tons constituting a carload and the amount actually loaded shall be settled for at market difference at destination on the day of arrival.

NEW FEED BRANDS

"BEACON" dairy rations, horse feed and scratch grains. The Beacon Feed Company, New York. Filed June 16, 1919. Serial No. 119,626. Published July 13, 1920. See cut.

"DROVERS" dairy and stock feed. American

DROVERS
Ser. No. 116,733.



Ser. No. 119,626.



Ser. No. 127,787.

Mutual Seed Company, Chicago, Ill. Filed March 20, 1919. Serial No. 116,733. Published July 13, 1920. See cut.

"S" stock, dairy and poultry feed. The Superior Feed Company, Memphis, Tenn. Filed January 30, 1920. Serial No. 127,787. Published July 6, 1920. See cut.

Two new alfalfa mills have been put in operation at Fernley, Nev., for Chas. E. Goss & Son; capacity 50 tons daily. The firm handles alfalfa, grain and feeds.

A site at East Bottoms, Kansas City, Mo., has been purchased by the Feeders Supply Company of Kansas City, Mo., to erect a feed mixing and alfalfa grinding plant. The plant will have feed mixing department of 200 tons' daily capacity.

The Hardin County Hay Company was recently organized and has taken over the offices and storage house at Kenton, Ohio, formerly conducted by the Jones Hay Company. The offices and barns have been remodeled and storage room for 35 cars hay provided.

The Jones-Dill-McPeak Company of Wabasha, Minn., has plans for a mixed feed plant. It will have capacity of 200 tons balanced feed for horses, cows and chickens. R. E. Jones is president; John Dill, secretary, and W. L. McPeak, vice-president and manager.

A hay and grain business is to be conducted at Hoffmans, N. Y., by J. P. Hallenbeck. He will begin business on September 1. Mr. Hallenbeck has been for the past two years manager of the hay and grain shipping business of the Montgomery County Hay & Produce Association, Inc., at Amsterdam.

The Sheek Bros. Company of Indianapolis, Ind., has been reorganized as the Farmers Grain & Feed Company, capitalized at \$150,000. It has purchased the plant and business of the Belt Elevator Company and will manufacture feeds. G. W. Sheek is president; Henry Lantz, vice-president; Victor N. Sheek, secretary, and H. B. Shepherd, treasurer.

The Wood Alfalfa Products Company has been organized at Kansas City, Mo., by Wallace B. Wood. The company owns a mill at Abilene, Kan., with capacity of 10,000 tons alfalfa meal annually. Until recently this plant was owned by the Denver Alfalfa Milling & Products Company. The firm has offices at 749 Livestock Exchange Building, Kansas City. Mr. Wood has been with the Denver alfalfa firm as general sales agent in Kansas City.

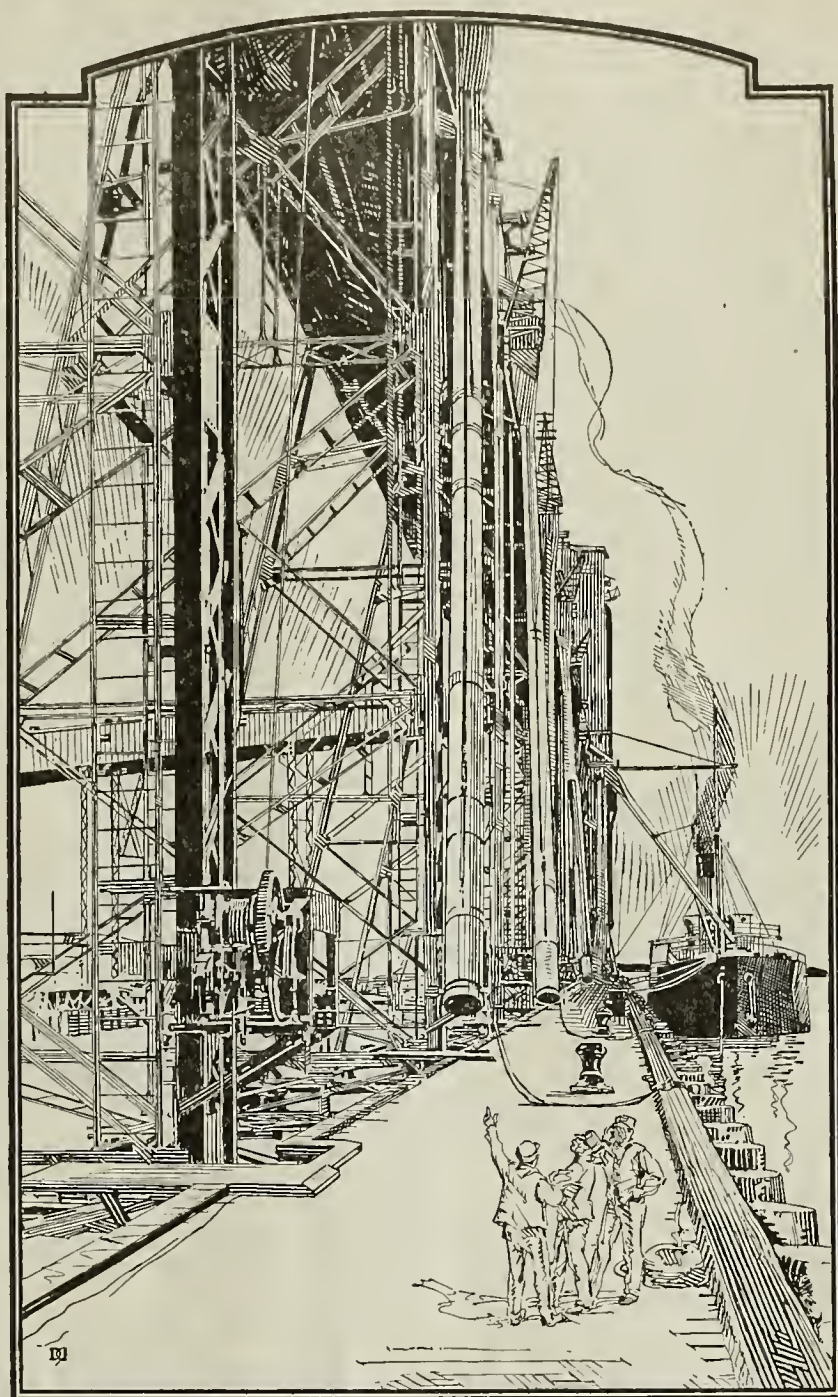
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"Carigrain" and "Legrain" Belts

FIELD SEEDS

(Continued from Page 145)

NEW NEW YORK SEED LAW

On July 1, the new seed law passed by the state legislature, became effective. Under it the dealers are required to place a tag or label on each lot of seed. The experiment station at Geneva is preparing a bulletin setting forth the requirements of the law and how they affect each dealer and farmer and giving directions to be followed in labeling and testing seeds.

The commissioner of agriculture will collect seeds offered for sale for seeding purposes and submit them to the experiment station at Geneva for testing. It will also make purity and germination tests for farmers, seed dealers and others, subject to provisions laid down by board of control of the state.

Three classes of agricultural seeds are recognized in the law, viz: unmixed seed, a mixture of two kinds of seeds, and special mixtures. While different requirements are set forth in the law for each of the three classes of seeds, the information which a tag applicable to all classes should contain is as follows: Common name, percentage of purity, percentage of inert matter, percentage of weed seeds; percentage of germination and the

date when tested; the names of certain noxious weeds such as quack grass, Canada thistle, wild mustard, and dodder, when they are present; and the name and address of the vendor of the seed.

Chas. A. Hill has organized Chas. A. Hill & Co. to specialize in field seeds, grain and feeds of all kinds at Nashville, Tenn.

A large building at Toledo, Ohio, has been purchased for \$55,000 by Henry Hirsch, wholesale field seedsman. Their seed business will be moved there.

The capital stock of the Oshkosh Seed Company of Oshkosh, Wis., has been increased from \$100,000 to \$200,000. The warehouses and general trade are to be enlarged.

To handle seeds, field and garden, the Hennings-Harving Company was incorporated at Manhattan, N. Y. E. Thygesen, C. T. Roe and C. P. Kramer are interested. Its capital stock is \$50,000.

A modern seed warehouse is to be erected at Buffalo, N. Y., by the Stanford Seed Company. The building will be three stories high, 70x150 feet. It will be of brick and concrete and will cost \$100,000.

The Marlow Seed Company has purchased the seed business of the Campbell Seed & Supply Company of Wichita, Kan. They will move it to new quarters. The Campbell company is retiring from business.

Johnson's Seed Store at Cleveland, Ohio, will be moved on October 1 to a new location. The site has been leased for 99 years and the seedsmen have option on it to purchase within first 10 years. They will improve it with a one-story building.

Ralph Skidmore is president; H. L. Haslanger, vice-president; W. I. Brockson, secretary and treasurer of the Marinette Seed Company which was recently incorporated at Marinette, Wis. The capital stock of the firm is \$50,000. The company will deal primarily in field seeds.

Capitalized at \$1,000,000, the Henry Field Seed Company has been reorganized at Shenandoah, Iowa.

To engage in growing, purchasing and selling seeds, plants and trees, E. Alves, J. W. Karbach and Andrew Anton have incorporated as F. Alves & J. W. Karbach, Inc., at Lockhart, Texas, capitalized at \$34,000.

H. Fauchet & Cie of Paris, France, and A. Plessis Fils, Chateau Dun, France, have amalgamated. The former company was established in 1889 by Henri Block. In 1908 M. H. Fauchet joined the company. In the future the combined businesses will be con-

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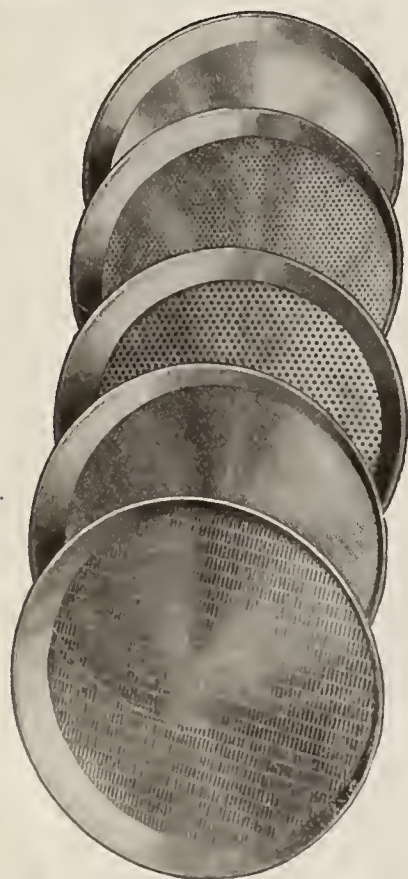
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August 15, 1920

ducted as H. Fauchet & A. Plessis at 18 Rue Sauval, Paris. The company will build a new seed house at Chateau Dun.

An addition is to be built to the warehouse of the Meier Seed Company of Russell, Kan., this winter.

An office has been opened at Montesano, Wash., by the Western Seed & Implement Company of Chehalis.

A new office building is being added to the warehouse of the Blotz-Henneman Seed Company of Rocky Ford, Colo.

J. C. Dunlap is with the Courteen Seed Company of Milwaukee, Wis. He was formerly with the Illinois Seed Company.

J. T. Oxley is no longer with the Nebraska Seed Company of Omaha, Neb. He has not made any definite announcement as to what connections he will make in the future.

Grain and Seeds

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And send prices of hay and corn. We are large buyers of both. We sell Velvet Beans for seed and will contract now with you for your wants next season. Peas of all kinds. Shingles, we sell L. L. Y. P. and Cypress both ones and twos. Georgia buyers, write us for prices on corn both western and Georgia delivered, also hay. H. M. FRANKLIN, Tennile, Ga.

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Our location in Kansas City, well located as a distributing seed center, and a large clientele secured through many years of seed trade experience, should indicate that we are in a position to serve you, whether you are buying or selling.

If you have seeds to sell, send us your samples. If you are buying, wire us your needs.

In addition to field seeds, we make a specialty of kaffir corn, milo maize and seed screenings, all kinds, suitable for poultry and ground stock feeds.

An opportunity to quote you will no doubt lead to a pleasant and permanent business relation.

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of grass and
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MINNESOTA

For Sale

[Copy for notices under this head should reach us by the 12th of the month to insure insertion in the issue for that month.]

ELEVATORS AND MILLS

ELEVATOR FOR SALE AT PAOLA, KAN.

Capacity about 10,000 bushels. Gas engine. Good repair. FOWLER COMMISSION COMPANY, Kansas City, Mo.

FOR SALE

Fourteen thousand bushel elevator and new 50-barrel mill and machinery, surrounded by 60,000 acres irrigated land with prospects of largest crop of wheat ever produced. B. S. MATSON, French, N. M.

OHIO ELEVATOR FOR SALE

Good town with good schools and churches. Finest farming community. No competition. Electric power. Good reasons for selling. OHIO, Box 4, care "American Elevator and Grain Trade," Chicago, Ill.

FOR SALE

Grain and feed elevator with electric attrition feed mill. No competition. Located in good grain territory; good dairy and feed business. Plenty of grinding with good retail trade. C. A. FENSTERMAKER, Amboy, Ill.

FOR SALE

Well equipped 100-barrel mill in Rocky Mountain territory, with advantage of natural gas for fuel. Present owners retiring account poor health and other interests. ROCKY MOUNTAIN, Box 6, care "American Elevator and Grain Trade," Chicago, Ill.

FOR SALE

An 8,000 to 10,000-bushel elevator, two warehouses, hay barn and coal bins. Located in town of 3,000 people. Best town between St. Joseph and Denver; paved streets. Five railroads. Good retail business. Address inquiries to BOX 638, Superior, Neb.

BUSINESS OPPORTUNITY

Account of illness and death must sell grain, hay and coal business located in the best and largest town in Northern Colorado, only 40 miles from Estes Park. Annual sales not including wheat run around \$100,000. Handle 5,000 tons of coal yearly and expect to exceed that this year, as have valuable school and county contract for 1,700 tons. Our books or a 10-minute visit in town will prove these statements. Will sell the business and give five-year lease on the modern brick elevator, warehouse, hay and coal sheds; or will sell outright. If you want a real business in a live city within four miles of the mountains, look into this immediately, as we must sell. OPPORTUNITY, Box 8, care "American Elevator and Grain Trade," Chicago, Ill.

MACHINERY

FOR SALE

One 36-in. 12-ft. horizontal tubular boiler. GOODRICH BROS. H. & G. CO., Winchester, Ind.

ENGINE FOR SALE

A 15-horsepower Bessemer Gas Engine, good as new. Selling on account of installing motors. LEXINGTON ELEVATOR & MILL CO., Lexington, Ohio.

WANTED

A 15-horsepower General Electric, 3 phase, 60 cycle, 220 volt motor. WM. BONSLETT, Woodstock, Ill.

FOR SALE

One No. 89 Clipper Bean Cleaner with rubber rolls, used six months. Grain sieves never used. R. E. R., Box 7, care "American Elevator and Grain Trade," Chicago, Ill.

FOR SALE

Two new 109-D Dustless Clipper Cleaners with traveling brushes and air controllers. Cleaners have never been in use. Write for prices. THE M. G. MADSON SEED COMPANY, Manitowoc, Wis.

FOR SALE

One Great Western Four-Roller Corn and Feed Mill, two-pair high, 9x24. Only used short time. Le Page corrugation. In good condition. FREMONT MILLING COMPANY, Fremont, Neb.

WILL YOU BUILD CONCRETE BINS?

We have for sale cheap 125 second-hand jacks for this purpose. CONCRETE BINS, Box 2, care "American Elevator and Grain Trade," Chicago, Ill.

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60-horsepower Fairbanks-Morse.
50-horsepower Otto.
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50 other sizes.
A. H. McDONALD, 550 W. Monroe St., Chicago, Ill.

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FOR SALE—BURLAP BAGS OF EVERY KIND

New or second-hand, plain or printed with your brand; seamless cotton grain bags; sample bags; burlap, cotton, sheeting, or paper for car lining, etc. Wanted: Second-hand bags; best prices paid. WILLIAM ROSS & CO., 409 N. Peoria St., Chicago, Ill.

Miscellaneous Notices

[Copy for notices under this head should reach us by the 12th of the month to insure insertion in the issue for that month.]

FOR SALE

Grain and feed business near Portland, Me. Annual business over \$100,000. T. C. WENTWORTH, Cornish, Me.

MILLER WANTED

With few thousand dollars to take some milling stock and run a short system mill. Must have best of reference. UNION GRAIN AND MILL COMPANY, Jonesboro, Ill.

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Mixed cars of flour and mill feeds in 100-pound sacks are our specialties. Would like to send you a trial order to convince you of the superiority of our products. ANSTED & BURK CO., Springfield, Ohio.

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As manager of co-operative country elevator. Am 38 years old; married. Several years' experience in grain elevator and flour mills and handling flour, feed, coal and salt. Could take charge of elevator and concentrated flour mill. In replying state salary and living conditions. Must have 30 days' notice. N. O. SELZER, Cecil, Wis.

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Minneapolis, Minn.

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WANTED

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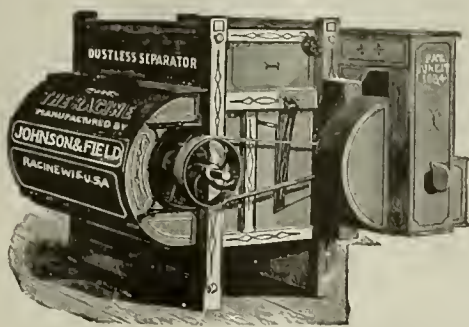
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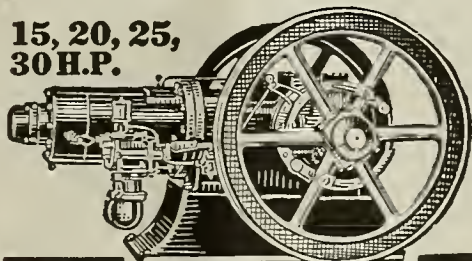
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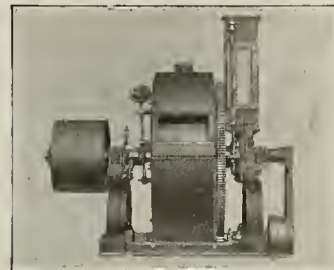
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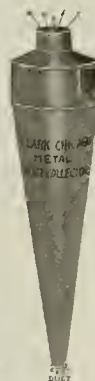
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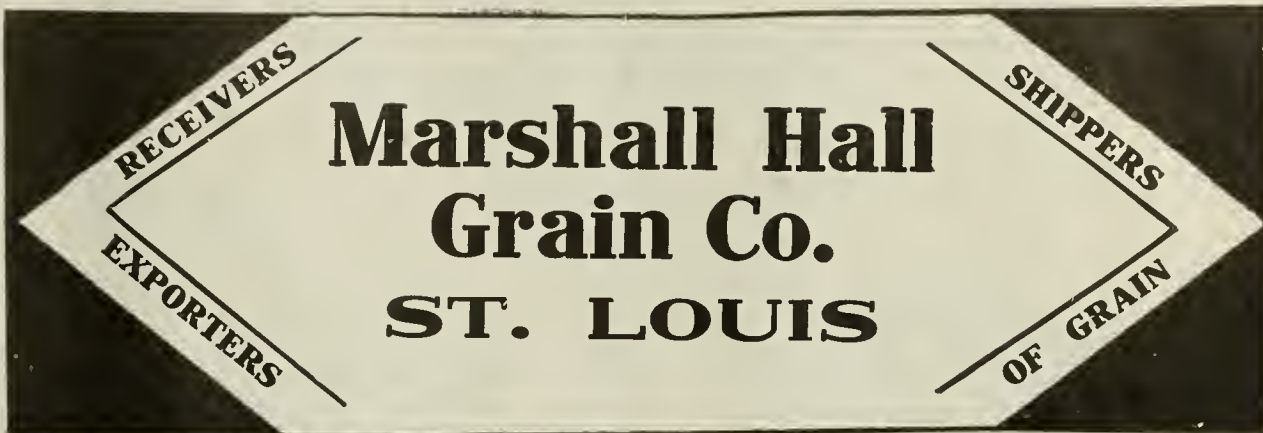
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Rogers & Co., Geo. E., receivers & shippers.*†

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Beveridge & Co., S. T., grain, hay, feed.*†
Moon-Taylor Co., grain, feed and hay brokers.*†
Southern Brokerage Co., hay, grain, feed.*

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Acme Hay and Mill-Feed Co., mill feeds, tankage.*†

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Goffe & Carkener Co., grain, hay, seeds.*†
Graham & Martin Grain Co., rec. exclusively.*†
Langenberg Bros. Grain Co., grain com.*†
Marshall Hall Grain Co., receivers, shippers and exporters.*
Mullally Hay & Grain Co.*†
Nanson Commission Co., receivers, shippers.*†
Picker & Beardsley Com. Co., grain, hay.*†
Powell & O'Rourke Grain Co., receivers, shippers, exporters.*

Prunty, Chas. E., grain and seeds.*
Schisler Seed Co., A. W., field and garden seeds.
Schultz & Niemcier Com. Co., receivers and shippers.*
Seele Bros. Grain Co., commission.*
Toberman, Mackey & Co., grain, hay, seeds.*†
Turner Grain Co., grain commission.*

SIDNEY, OHIO.

Custenborder & Co., E. T., buyers and shippers of grain in car lots.*
Wells Co., J. E., wholesale grain, seed.*

SPRINGFIELD, ILL.

Lloyd & Co., John H., grain merchants.*

TERRE HAUTE, IND.

Kuhn & Co., Paul, receivers and shippers.

TIFFIN, OHIO.

Sneath-Cunningham Co., grain and seeds.

TOLEDO, OHIO.

De Vore & Co., H. W., grain, seeds.*
King & Co., C. A., grain and seeds.*†
Raddatz & Co., H. D., grain, seeds.*
Rice Grain Co., receivers and shippers.*
Southworth & Co., grain and seeds.*†
Wickenhiser & Co., John, grain dealers.*
Zahm & Co., J. F., grain and seeds.*†

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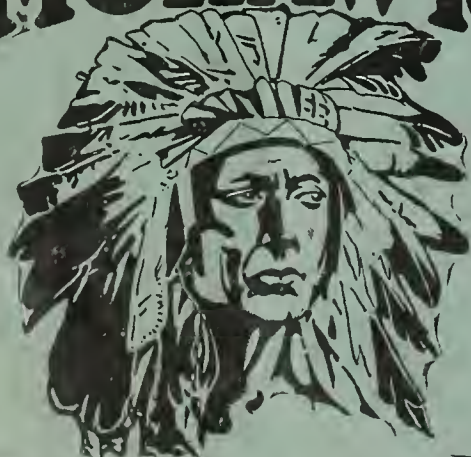
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